UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2019

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 001-37702

Amgen Inc.

(Exact name of registrant as specified in its charter)

Delaware	**95-3540776**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One Amgen Center Drive	
Thousand Oaks	
California	**91320-1799**
(Address of principal executive offices)	(Zip Code)

(805) 447-1000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol (s)	Name of each exchange on which registered
Common stock, $0.0001 par value	**AMGN**	**The NASDAQ Global Select Market**
1.250% Senior Notes Due 2022	**AMGN22**	**New York Stock Exchange**
2.00% Senior Notes Due 2026	**AMGN26**	**New York Stock Exchange**

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or Section 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act) Yes No ☒

The approximate aggregate market value of voting and non-voting stock held by non-affiliates of the registrant was $110,809,019,075 as of June 30, 2019.(A)

(A) Excludes 744,928 shares of common stock held by directors and executive officers, and any stockholders whose ownership exceeds ten percent of the shares outstanding, at June 30, 2019. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, directly or indirectly, to direct or cause the direction of the management or policies of the registrant, or that such person is controlled by or under common control with the registrant.

589,806,819

(Number of shares of common stock outstanding as of February 6, 2020)

DOCUMENTS INCORPORATED BY REFERENCE

Specified portions of the registrant's Proxy Statement with respect to the 2020 Annual Meeting of Stockholders to be held May 19, 2020, are incorporated by reference into Part III of this annual report.

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PART I

Item 1. BUSINESS

Amgen Inc. (including its subsidiaries, referred to as "Amgen," "the Company," "we," "our" or "us") is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

Amgen was incorporated in California in 1980 and became a Delaware corporation in 1987. We have a presence in approximately 100 countries worldwide. Amgen operates in one business segment: human therapeutics.

Significant Developments

Following is a summary of significant developments affecting our business that have occurred and that we have reported since the filing of our Annual Report on Form 10-K for the year ended December 31, 2018.

Products/Pipeline

Oncology/Hematology

KANJINTI™ (trastuzumab-anns)*

- In June 2019, the U.S. Food and Drug Administration (FDA) approved KANJINTI™ for all approved indications of the reference product Herceptin® (trastuzumab) for the treatment of HER2-overexpressing adjuvant and metastatic breast cancer and HER2-overexpressing metastatic gastric or gastroesophageal junction adenocarcinoma. In July 2019, we and Allergan plc (Allergan) launched KANJINTI™ in the United States.

  For a discussion of litigation related to KANJINTI™, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

KYPROLIS® (carfilzomib)

- In September 2019, we announced that the phase 3 CANDOR (Carfilzomib, Daratumumab and Dexamethasone for Patients With Relapsed and/or Refractory Multiple Myeloma) study evaluating KYPROLIS® in combination with dexamethasone and DARZALEX® (daratumumab) compared to KYPROLIS® and dexamethasone alone in patients with relapsed multiple myeloma met its primary endpoint of progression-free survival (PFS).
- In January 2020, a supplemental New Drug Application (sNDA) was submitted to the FDA to expand the Prescribing Information to include KYPROLIS® in combination with dexamethasone and DARZALEX® for patients with relapsed or refractory multiple myeloma based on data from the phase 3 CANDOR study.
- In January 2020, our Marketing Authorization Application (MAA) was accepted by the China National Medical Products Administration for the use of KYPROLIS® and dexamethasone for the treatment of relapsed or refractory multiple myeloma.

MVASI™ (bevacizumab-awwb)*

- In July 2019, we and Allergan launched MVASI™ in the United States.

  For a discussion of litigation related to MVASI™, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

* Registered in the United States.

Collaboration with BeiGene, Ltd.

- In January 2020, we entered into a strategic collaboration with BeiGene, Ltd. (BeiGene) to support our oncology pipeline and expand our oncology presence in China. As part of the agreement we acquired a 20.5% stake in BeiGene for $2.8 billion in cash.

AMG 510

- In October 2019, the FDA granted AMG 510 fast track designation for the treatment of patients with previously treated metastatic non-small cell lung cancer (NSCLC) with Kirsten rat sarcoma viral oncogene homolog (KRAS) G12C mutation. AMG 510 is a small molecule inhibitor of KRAS G12C.

ABP 798 (biosimilar rituximab)

- In August 2019, we and Allergan announced positive top-line results from a comparative clinical study evaluating the efficacy and safety of ABP 798, a biosimilar candidate to Rituxan® (rituximab), compared to Rituxan® in patients with CD20-positive B-cell non-Hodgkin's lymphoma. The primary endpoint, an assessment of overall response rate by week 28, was within the prespecified margin for ABP 798 compared to Rituxan®, showing clinical equivalence. Safety and immunogenicity of ABP 798 were comparable to Rituxan®.
- In December 2019, we and Allergan submitted a Biologics License Application (BLA) to the FDA for ABP 798.

Cardiovascular

Repatha® (evolocumab)

- In August 2019, the U.S. District Court for the District of Delaware overturned a unanimous jury verdict upholding the validity of two of our patents related to proprotein convertase subtilisin/kexin type 9 (PCSK9) antibodies in our infringement action against Sanofi, Sanofi-Aventis U.S. LLC, Aventisub LLC and Regeneron Pharmaceuticals, Inc. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Inflammation

AVSOLA™ (infliximab-axxq/formerly ABP 710)

- In December 2019, the FDA approved AVSOLA™ for all approved indications of the reference product REMICADE® (infliximab).

Enbrel® (etanercept)

- In August 2019, the U.S. District Court for the District of New Jersey ruled in Amgen's favor on validity of the two patents that describe and claim ENBREL and methods for making it. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Acquisition of Otezla® (apremilast)

- In November 2019, we completed our acquisition of the worldwide rights to Otezla®, the only oral, non-biologic treatment for psoriasis and psoriatic arthritis from Celgene Corporation (Celgene). Otezla®, along with certain related assets and liabilities, was acquired for $13.4 billion in cash.

Bone health

EVENITY® (romosozumab-aqqg)

- In April 2019, the FDA approved EVENITY® for the treatment of osteoporosis in postmenopausal women at high risk for fracture.
- In December 2019, the European Commission (EC) granted marketing authorization for EVENITY® for the treatment of severe osteoporosis in postmenopausal women at high risk of fracture.

Neuroscience

AMG 520/CNP520

- In July 2019, we and Novartis AG (Novartis) discontinued investigating AMG 520/CNP520, a small molecule inhibitor of beta-site amyloid precursor protein-cleaving enzyme-1 (BACE), for the prevention of Alzheimer's disease.

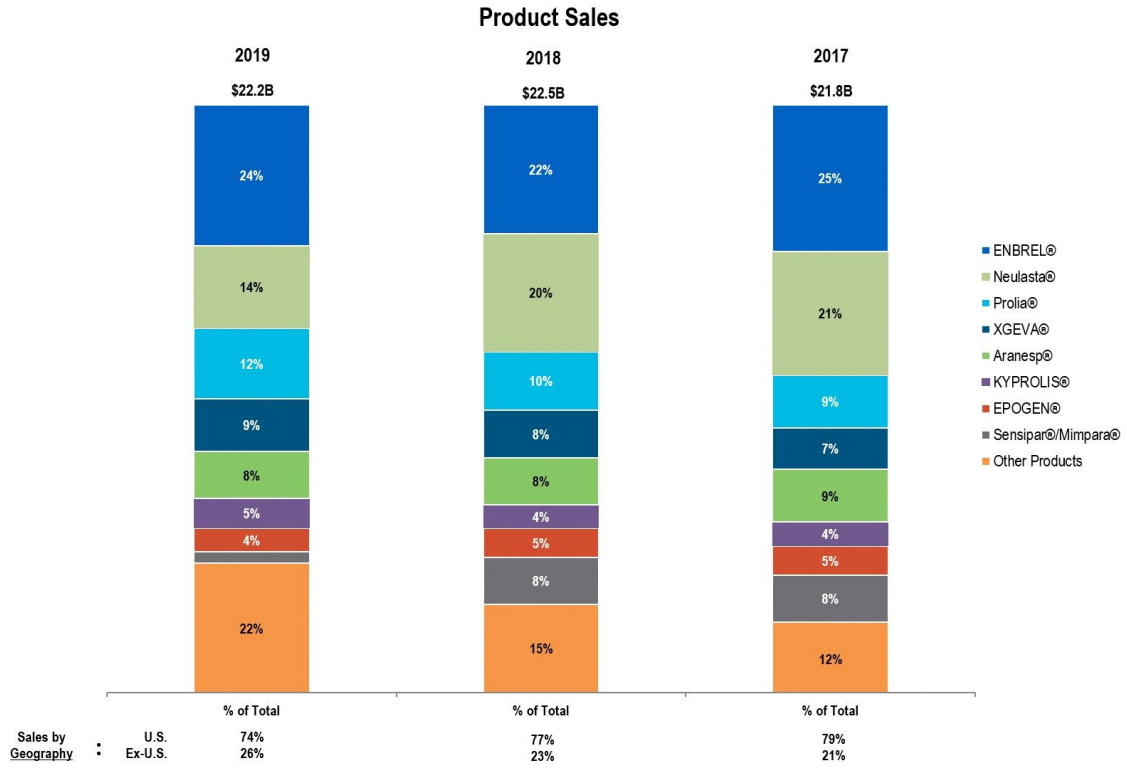
Marketing, Distribution and Selected Marketed Products

The largest concentration of our sales and marketing forces is based in the United States and Europe. In addition, we continue to expand the commercialization and marketing of our products into other geographic territories, including parts of Latin America, the Middle East and Asia. This expansion is occurring by establishing our own affiliates, by acquiring existing third-party businesses or product rights or by partnering with third parties. Whether we use our own sales and marketing forces or a third party's varies across these markets. Such use typically depends on several factors, including the nature of entry into the new market, the size of an opportunity and operational capabilities. Together with our partners, we market our products to healthcare providers, including physicians or their clinics, dialysis centers, hospitals and pharmacies.

In the United States, we sell primarily to pharmaceutical wholesale distributors, which are the principal means of distributing our products to healthcare providers. We also market certain products through direct-to-consumer channels, including print, television and online media. For further discussion, see Government Regulation—Regulation in the United States—Regulation of Product Marketing and Promotion. Outside the United States, we sell principally to healthcare providers and/or pharmaceutical wholesale distributors depending on the distribution practice in each country.

Our product sales to three large wholesalers, AmerisourceBergen Corporation, McKesson Corporation and Cardinal Health, Inc., each individually accounted for more than 10% of total revenues for each of the years 2019, 2018 and 2017. On a combined basis, these wholesalers accounted for 81%, 84% and 81% of worldwide gross revenues for 2019, 2018 and 2017, respectively. We monitor the financial condition of our larger customers and limit our credit exposure by setting credit limits and, in certain circumstances, by requiring letters of credit or obtaining credit insurance.

Our products are marketed around the world, with the United States being our largest market. The following chart shows our product sales by principal product and by geography for the years 2019, 2018 and 2017.



Enbrel® (etanercept)

We market ENBREL, a tumor necrosis factor blocker, primarily in the United States. ENBREL was launched in 1998 and is used primarily in indications for the treatment of adult patients with moderately to severely active rheumatoid arthritis, patients with chronic moderate-to-severe plaque psoriasis who are candidates for systemic therapy or phototherapy and patients with active psoriatic arthritis.

Neulasta® (pegfilgrastim)

We market Neulasta®, a pegylated protein based on the filgrastim molecule, primarily in the United States and Europe. Neulasta® was launched in 2002 and is used primarily in the indication to help reduce the chance of infection due to a low white blood cell count in patients with certain types of cancer (nonmyeloid) who receive anticancer medicines (chemotherapy) that can cause fever and a low blood cell count. In 2015, the Neulasta® Onpro® kit became available in the United States. The Neulasta® Onpro® kit provides physicians the opportunity to initiate the administration of Neulasta® on the same day as chemotherapy, with drug delivery of the recommended dose of Neulasta® at home the day after chemotherapy, thereby saving patients a trip back to the doctor.

Prolia® (denosumab)

We market Prolia® primarily in the United States and Europe. Prolia® contains the same active ingredient as XGEVA® (denosumab) but is approved for different indications, patient populations, doses and frequencies of administration. Prolia® was launched in the United States and Europe in 2010. In the United States, it is used primarily in the indication for the treatment of postmenopausal women with osteoporosis at high risk of fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy. In Europe, Prolia® is used primarily for the treatment of osteoporosis in postmenopausal women at increased risk of fracture.

XGEVA®

We market XGEVA® primarily in the United States and Europe. XGEVA® was launched in the United States in 2010 and is now used primarily in the indication for the prevention of skeletal-related events (SREs) (pathological fracture, radiation to bone, spinal cord compression or surgery to bone) in patients with bone metastases from solid tumors and multiple myeloma. XGEVA® was launched in Europe in 2011 and is used primarily in the indication for the prevention of SREs in patients with bone metastases from solid tumors. It was approved in January 2018 in the United States and in April 2018 in Europe for the prevention of SREs in patients with multiple myeloma.

Aranesp® (darbepoetin alfa)

We market Aranesp® primarily in the United States and Europe. It was launched in 2001 and is indicated to treat a lower-than-normal number of red blood cells (anemia) caused by chronic kidney disease (CKD) (in both patients on dialysis and patients not on dialysis). Aranesp® is also indicated for the treatment of anemia due to concomitant myelosuppressive chemotherapy in certain patients with nonmyeloid malignancies and when chemotherapy will be used for at least two months after starting Aranesp®.

KYPROLIS® (carfilzomib)

We market KYPROLIS® primarily in the United States and Europe. KYPROLIS® was launched in 2012 and is indicated in combination with dexamethasone or with lenalidomide plus dexamethasone for the treatment of patients with relapsed or refractory multiple myeloma who have received one to three prior lines of therapy. It is also approved as a single agent for patients with relapsed or refractory multiple myeloma who have received one or more previous therapies. In September 2019, the CANDOR phase 3 study of KYPROLIS® in combination with dexamethasone and DARZALEX® met its primary endpoint of PFS in patients with relapsed or refractory multiple myeloma. FDA approval of KYPROLIS® in combination with dexamethasone and DARZALEX® is expected in 2020.

EPOGEN® (epoetin alfa)

We market EPOGEN® in the United States for dialysis patients. EPOGEN® was launched in 1989, and we market it for the indication to treat anemia caused by CKD in patients on dialysis in order to lessen the need for red blood cell transfusions. The majority of our sales are to a large dialysis provider.

Sensipar®/Mimpara® (cinacalcet)

We market cinacalcet as Sensipar® primarily in the United States and as Mimpara® primarily in Europe. It was launched in 2004 and is used primarily in the indication for the treatment of secondary hyperparathyroidism in adult patients with CKD who are on dialysis.

Other Marketed Products

We also market a number of other products in various markets worldwide, including Nplate® (romiplostim), Vectibix® (panitumumab), Repatha® (evolocumab), Parsabiv® (etelcalcetide), BLINCYTO® (blinatumomab), Aimovig® (erenumab-aooe), NEUPOGEN® (filgrastim), Otezla® (apremilast), AMGEVITA™ (adalimumab), KANJINTI™ (trastuzumab), EVENITY® (romosozumab-aqqg), IMLYGIC® (talimogene laherparepvec), MVASI™ (bevacizumab-awwb) and Corlanor® (ivabradine).

Otezla®

In November 2019, we began to market Otezla® upon the closing of our acquisition. Otezla® is used primarily for the treatment of patients with moderate-to-severe plaque psoriasis for whom phototherapy or systemic therapy is appropriate.

Patents

The following table lists our outstanding material patents for the indicated product by territory, general subject matter and latest expiry date. Certain of the European patents are the subjects of supplemental protection certificates that provide additional protection for the products in certain European countries beyond the dates listed in the table. See footnotes to the patent table below.

One or more patents with the same or earlier expiry dates may fall under the same general subject matter and are not listed separately.

Product	Territory	General subject matter	Expiration
Enbrel® (etanercept)	U.S.	Methods of treatment using aqueous formulations	6/8/2023
	U.S.	Formulations	10/19/2037
	U.S.	Fusion protein and pharmaceutical compositions	11/22/2028
	U.S.	DNA encoding fusion protein and methods of making fusion protein	4/24/2029
Prolia®/XGEVA® (denosumab)	U.S.	RANKL antibodies	9/17/2021
	U.S.	Methods of treatment	6/25/2022
	U.S.	Nucleic acids encoding RANKL antibodies and methods of producing RANKL antibodies	11/30/2023
	U.S.	RANKL antibodies, including sequences	2/19/2025
	Europe	RANKL antibodies, including epitope binding	2/23/2021
	Europe	RANKL antibodies, including sequences(1)	6/25/2022
Aranesp® (darbepoetin alfa)	U.S.	Glycosylation analogs of erythropoietin proteins	5/15/2024
Sensipar®/Mimpara® (cinacalcet)	U.S.	Formulation	9/22/2026
	Europe	Calcium receptor-active molecules(1)	10/23/2015
	Europe	Formulation	9/10/2024
KYPROLIS® (carfilzomib)	U.S.	Compositions and compounds	12/7/2027
	U.S.	Methods of treatment	4/14/2025
	U.S.	Methods of making	5/8/2033
	Europe	Compositions, compounds and methods of treatment(1)	8/8/2025
Nplate® (romiplostim)	U.S.	Thrombopoietic compounds	1/19/2022
	U.S.	Formulation	2/12/2028
	Europe	Thrombopoietic compounds(1)	10/22/2019
	Europe	Formulation	4/20/2027
Vectibix® (panitumumab)	U.S.	Human monoclonal antibodies to epidermal growth factor receptor	4/8/2020
	Europe	Human monoclonal antibodies to epidermal growth factor receptor(1)	5/5/2018
Repatha® (evolocumab)	U.S.	Antibodies(2)	10/25/2029
	U.S.	Methods of treatment	10/8/2030
	Europe	Compositions(1)	8/22/2028
	Europe	Methods of treatment	5/10/2032
Parsabiv® (etelcalcetide)	U.S.	Compound and pharmaceutical composition(2)	7/29/2030
	U.S.	Formulation	6/27/2034
	U.S.	Methods of making	8/9/2035
	Europe	Compound and pharmaceutical composition(1)	7/29/2030
	Europe	Formulation	6/27/2034
BLINCYTO® (blinatumomab)	U.S.	Bifunctional polypeptides	4/23/2023
	U.S.	Method of administration	9/28/2027
	Europe	Bifunctional polypeptides(1)	11/26/2024
	Europe	Method of administration	11/6/2029
Aimovig® (erenumab-aooe)	U.S.	CGRP receptor antibodies(2)	11/9/2031
	U.S.	Methods of treatment	4/22/2036
	Europe	CGRP receptor antibodies(1)	12/18/2029
	Europe	Methods of treatment	8/10/2035
IMLYGIC® (talimogene laherparepvec)	U.S.	Compositions	11/23/2025
	U.S.	Method of treatment	3/27/2022
	Europe	Composition and uses(1)	3/27/2022
Corlanor® (ivabradine)	U.S.	Crystalline forms	2/22/2026
EVENITY® (romosozumab-aqqg)	U.S.	Antibodies(2)	4/25/2026
	U.S.	Methods of treatment(2)	1/11/2029
	U.S.	Formulation and methods of using formulation	5/11/2031
	Europe	Antibodies	4/28/2026
	Europe	Methods of treatment	4/18/2032
	Europe	Formulation and methods of using formulation	5/11/2031
Otezla® (apremilast)	U.S.	Compositions and compounds	2/16/2028
	U.S.	Crystalline form	12/9/2023
	U.S.	Methods of treatment	5/29/2034
	Europe	Compositions, compounds and methods of treatment(1)	3/20/2023

CGRP = calcitonin gene-related peptide, RANKL = receptor activator of nuclear factor kappa-B ligand

(1) A European patent with this subject matter may also be entitled to supplemental protection in one or more countries in Europe, and the length of any such extension will vary by country. For example, supplementary protection certificates have been issued related to the indicated products for patents in at least the following countries:

- denosumab — France, Germany, Italy, Spain and the United Kingdom, expiring in 2025
- cinacalcet — France, Germany, Italy, Spain and the United Kingdom, expiring in 2020
- carfilzomib — France, Germany, Italy and Spain, expiring in 2030
- romiplostim — France, Germany, Italy, Spain and the United Kingdom, expiring in 2024
- panitumumab — France, Germany, Italy, Spain and the United Kingdom, expiring in 2022
- evolocumab — France and Spain, expiring in 2030
- etelcalcetide — France and Italy, expiring in 2031
- blinatumomab — France, Italy and Spain, expiring in 2029
- erenumab — France, Italy and Spain, expiring in 2033
- talimogene laherparepvec — Spain, expiring in 2026; France, Germany, Italy and the United Kingdom, expiring in 2027
- apremilast — Italy, expiring in 2028

(2) A patent with this subject matter may be entitled to patent term extension in the United States.

Competition

We operate in a highly competitive environment. A number of our marketed products are indicated in disease areas in which other products or treatments are currently available or are being pursued by our competitors through research and development (R&D) activities. Additionally, some competitor-marketed products target the same genetic pathways as our recently launched marketed products or are being pursued currently. This competition could impact the pricing and market share of our products. We continue to pursue ways to increase the value of our medicines through innovations during their life cycles, which can include expanding the disease areas for which our products are indicated and finding new methods to make the delivery of our medicines easier and less costly. Such activities can offer important opportunities for differentiation. For example, we market the Neulasta® Onpro® kit, which provides physicians the opportunity to initiate the administration of the recommended dose of Neulasta® on the same day as chemotherapy, with drug delivery at home the day after chemotherapy, thereby saving patients a trip back to the doctor. We also market the AutoTouch® reusable auto-injector to be used with Enbrel Mini® single-dose prefilled cartridges (50 mg/mL). The Enbrel Mini® utilizes a drug formulation of ENBREL that was associated with statistically significant lower-mean-injection site pain than the current formulation. We plan to continue pursuing innovation efforts to strengthen our competitive position. Such position may be based on, among other things, safety, efficacy, reliability, availability, patient convenience, delivery devices, price, reimbursement, access to and timing of market entry and patent position and expiration.

Certain of the existing patents on our principal products have expired, and we face new and increasing competition, including from biosimilars and generics. A biosimilar is another version of a biological product for which marketing approval is sought or has been obtained based on a demonstration that it is "highly similar" to the original reference product. We expect that the adverse impact on our originator product sales from biosimilar competition will reflect current trends and actual results given similar conditions. We also believe that when multiple biosimilar versions of one of our originator products get approved and launched, competition could intensify more rapidly, leading to net price declines for both reference and biosimilar products, resulting in a greater impact on our products' sales. We have seen biosimilar markets evolve differently across our major markets. For example, biosimilar adoption rates tend to be faster in the European Union (EU) than in the United States. In the United States, companies now have launched biosimilar versions of EPOGEN®, NEUPOGEN® and Neulasta® and have approved biosimilars for ENBREL. See also Government Regulation—Regulation in the United States—Approval of Biosimilars. Although we expect competitor biosimilars to compete on price, we believe many patients, providers and payers will continue to place high value on the reputation, reliability and safety of our products. As additional biosimilar competitors come to market, we will leverage our global experience versus both branded and biosimilar competition.

We also have our own biosimilar products in the United States and outside the U.S. markets that are competing against branded and biosimilar versions of our competitors' products. In 2019, Amgen, in collaboration with Allergan, launched in the United States MVASI ™, a biosimilar to Avastin® (bevacizumab), and KANJINTI™, a biosimilar to Herceptin® (trastuzumab). We have also received FDA approval for AMJEVITA™ (adalimumab-atto), a biosimilar to Humira® (adalimumab), and

AVSOLA™(infliximab-axxq), a biosimilar to Remicade® (infliximab). We expect additional biosimilar competition to both our branded and biosimilar products in the future across all markets.

In addition, although most of our products are biologics, some of our products are small molecule products. Because the FDA approval process allows generic manufacturers to rely on the safety and efficacy data of the innovator product rather than having to conduct their own costly and time-consuming clinical trials, generic manufacturers can often develop and market their competing versions of our small molecule products at much lower prices. As a result, upon the expiration or loss of patent protection for a small molecule product, we can lose the majority of revenues for that product in a very short period of time.

The introduction of new products, the development of new processes or technologies by competitors or the emergence of new information about existing products may result (i) in increased competition for our marketed products, even for those protected by patents or (ii) in reductions in the prices we receive from selling our products. In addition, the development of new treatment options or standards of care may reduce the use of our products or may limit the utility and application of ongoing clinical trials for our product candidates. (As used in this document, the term *clinical trials* may include prospective clinical trials, observational studies, registries and other studies.) See Item 1A. Risk Factors—*Our products face substantial competition* and Item 1A. Risk Factors—*We currently face competition from biosimilars and expect to face increasing competition from biosimilars and generics in the future*.

The following table reflects our significant competitors and is not exhaustive.

Product	Territory	Competitor-marketed product	Competitors
ENBREL	U.S. & Canada	REMICADE®*	Janssen Biotech, Inc. (Janssen)[1]
	U.S. & Canada	HUMIRA®	AbbVie Inc.
	U.S. & Canada	STELARA®[2]	Janssen[1]
Neulasta®[3]	U.S.	UDENYCA™	Coherus BioSciences, Inc.
	U.S.	Fulphila®	Mylan Institutional Inc.
	U.S. & Europe	Filgrastim biosimilars	Various
Prolia®	U.S. & Europe	Alendronate, raloxifene and zoledronate generics	Various
Aranesp®	U.S.	PROCRIT®[4]	Janssen[1]
	U.S.	MIRCERA®[5]	Galenica Group (Galenica)/F. Hoffmann-La Roche Ltd. (Roche)
	U.S. & Europe	Epoetin alfa biosimilars	Various
XGEVA®	U.S. & Europe	Zoledronate generics	Various
Sensipar®[6]/Mimpara®	U.S. & Europe	Active vitamin D analogs	Various
EPOGEN®[3]	U.S.	MIRCERA®	Galenica/Roche
	U.S.	RETACRIT™	Hospira[7]
KYPROLIS®[9]	U.S.	NINLARO®	Millennium Pharmaceuticals, Inc.[8]
	U.S. & Europe	REVLIMID®	Celgene [10]
	U.S.	POMALYST®	Celgene [10]
	U.S.	DARZALEX®	Janssen[1]
Repatha®	U.S. & Europe	PRALUENT®	Regeneron Sanofi
Otezla®	U.S. & Europe	HUMIRA®[2]	AbbVie Inc.
	U.S. & Europe	STELARA®[2]	Janssen[1]
	U.S. & Europe	Cosentyx®[2]	Novartis
	U.S. & Europe	Methotrexate generics[2]	Various

* Approved biosimilars available.

[1] A subsidiary of Johnson & Johnson (J&J).

[2] Dermatology only.

[3] Other biosimilars under regulatory review in the United States and Europe.

[4] PROCRIT® competes with Aranesp® in supportive cancer care and predialysis settings.

[5] MIRCERA® competes with Aranesp® only in the nephrology segment.

[6] Our U.S. composition-of-matter patent for Sensipar® expired in March 2018. We are engaged in litigation with a number of companies seeking to market generic versions of Sensipar® surrounding our U.S. formulation patent that expires in September 2026. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements, for further information. Several of these generic versions of Sensipar® have been approved by the FDA.

[7] A subsidiary of Pfizer Inc.

[8] A subsidiary of Takeda Pharmaceutical Company Limited.

[9] KYPROLIS® is facing increased competition from several recently approved products.

[10] A subsidiary of Bristol-Myers Squibb Company (BMS).

Reimbursement

Sales of our principal products are dependent on the availability and extent of coverage and reimbursement from third-party payers. In many markets around the world, these payers, including government health systems, private health insurers and other organizations, remain focused on reducing the cost of healthcare, and their efforts have intensified as a result of rising healthcare costs and economic challenges. Drugs remain heavily scrutinized for cost containment. As a result, payers are becoming more restrictive regarding the use of biopharmaceutical products and scrutinizing the prices of these products while requiring a higher level of clinical evidence to support the benefits such products bring to patients and the broader healthcare system. These pressures are intensified where our products are subject to competition, including from biosimilars.

In the United States, healthcare providers and other entities such as pharmacies and pharmacy benefit managers (PBMs) are reimbursed for covered services and products they deliver through both private payer and government healthcare programs such as Medicare and Medicaid. We provide negotiated rebates to healthcare providers, private payers, government payers and PBMs. In addition, we are required to (i) provide rebates or discounts on our products that are reimbursed through certain government programs, including Medicare and Medicaid, and (ii) provide discounts to qualifying healthcare providers under the federal 340B Drug Pricing Program.

Both private and government payers utilize formularies to manage access and utilization of drugs. A drug's inclusion and favorable positioning on formulary is essential to ensure patients have access to a particular drug. Even when access is available, some patients abandon their prescriptions due to economic reasons. Payers continue to institute cost reduction and containment measures that lower drug utilization and/or spending altogether and/or shift a greater portion of the costs to patients. Such measures include, but are not limited to, more limited benefit plan designs, higher patient co-pays or coinsurance obligations, limitations on patients' use of commercial manufacturer co-pay payment assistance programs (including through co-pay accumulator adjustment or maximization programs), stricter utilization management criteria before a patient may get access to a drug, higher-tier formulary placement that increases the level of patient out-of-pocket costs and formulary exclusion, which effectively encourages patients and providers to seek alternative treatments or pay 100% of the cost of a drug. The use of such measures by PBMs and insurers has continued to intensify and thereby limited Amgen product usage and sales. Furthermore, over the past few years, PBMs and insurers have consolidated, resulting in a smaller number of PBMs and insurers overseeing a large portion of total covered lives in the United States. As a result, PBMs and insurers have greater market power and negotiating leverage to mandate stricter utilization criteria and/or exclude drugs from their formularies in favor of competitor drugs or alternative treatments. In highly competitive treatment markets such as with ENBREL, Otezla, Repatha® and Aimovig®, PBMs are also able to exert negotiating leverage by requiring incremental rebates from manufacturers in order to gain and/or maintain their formulary position.

In addition to market actions taken by private and government payers in the United States, policy makers from both major U.S. political parties are pursuing policies to lower drug costs. Potential policies cover a wide range of areas, including allowing importation of drugs from other countries, creating an International Pricing Index, which would set the prices of certain drugs based on those available in other countries, establishing caps on price increases based on inflation metrics, increasing greater transparency on drug pricing and utilizing third party value assessments to determine drug prices. For example, in December 2019, a drug-pricing bill, H.R. 3, passed the U.S. House of Representatives, which would, among other things, enable direct price negotiations by the federal government on certain drugs (with the maximum price paid by Medicare capped based on an international price index), include a penalty for failing to reach agreement with the government and require that manufacturers offer these negotiated prices to other payers. It also would penalize manufacturers for raising prices on drugs covered by Medicare Parts B and D faster than the rate of inflation and make other changes to the structure of Medicare Part D benefit design. The path forward on drug-pricing policy reforms remains unclear from both a congressional and administrative perspective despite all of the activity in 2019. Deliberations are continuing into 2020.

In many countries outside the United States, government-sponsored healthcare systems are the primary payers for drugs and biologics. With increasing budgetary constraints and/or difficulty in understanding the value of medicines, governments and payers in many countries are applying a variety of measures to exert downward price pressure. These measures can include mandatory price controls, price referencing, therapeutic-reference pricing, increases in mandates, incentives for generic substitution and biosimilar usage and government-mandated price cuts. In this regard, many countries have health technology assessment organizations that use formal economic metrics such as cost-effectiveness to determine prices, coverage and reimbursement of new therapies; and these organizations are expanding in established and emerging markets. Many countries also limit coverage to populations narrower than our product label or impose volume caps to limit utilization. We expect that countries will continue to take aggressive actions to seek to reduce expenditures on drugs and biologics. Similarly, fiscal constraints may also affect the extent to which countries are willing to approve new and innovative therapies and/or allow access to new technologies.

The dynamics and developments discussed above serve to create pressure on the pricing and potential usage of our products and the industry. Given the diverse interests in play between payers, biopharmaceutical manufacturers, policy makers, healthcare providers and independent organizations, if and whether the parties involved can achieve alignment on the matters discussed above remains unclear and the outcome of any such alignment is difficult to predict. We remain focused on delivering breakthrough treatments for unmet medical needs. Amgen is committed to working with the entire healthcare community to ensure continued innovation and to facilitate patient access to needed medicines. We do this by:

- investing billions of dollars annually in R&D;
- developing more affordable therapeutic choices in the form of high-quality and reliably-supplied biosimilars;
- pricing our medicines to reflect the value they provide;
- partnering with payers to share risk and accountability for health outcomes;
- providing patient support and education programs;
- helping patients in financial need access our medicines; and
- working with policy makers, patients and other stakeholders to establish a sustainable healthcare system with access to affordable care and where patients and their healthcare professionals are the primary decision makers.

See Item 1A. Risk Factors—*Our sales depend on coverage and reimbursement from third-party payers, and pricing and reimbursement pressures may affect our profitability* and Item 1A. Risk Factors—*Guidelines and recommendations published by various organizations can reduce the use of our products.*

Manufacturing, Distribution and Raw Materials

Manufacturing

We believe we are a leader in the manufacturing of biologics and that our manufacturing capabilities represent a competitive advantage. The products we manufacture consist of both biologics and small molecule drugs. The majority of our products are biologics that are produced in living cells and that are inherently complex due to naturally-occurring molecular variations. Highly specialized knowledge and extensive process and product characterization are required to transform laboratory-scale processes into reproducible commercial manufacturing processes. Further, our expertise in manufacturing of biologics positions us well for leadership in the global biosimilars market. For additional information regarding manufacturing facilities, see Item 2. Properties.

Our internal manufacturing network has the commercial production capabilities of bulk manufacturing, formulation, fill, finish, tableting and device assembly. These activities are performed within the United States and its territories in our Puerto Rico, Rhode Island and California facilities as well as internationally in our Ireland, Netherlands and Singapore facilities. In addition, we utilize third-party contract manufacturers to supplement the capacity or capability of our commercial manufacturing network.

To support our clinical trials, we manufacture product candidates primarily at our California facilities. We also utilize third-party contract manufacturers to supplement the capacity or capability of our overall clinical manufacturing network.

See Item 1A. Risk Factors for a discussion of the factors that could adversely impact our manufacturing operations and the global supply of our products.

Distribution

We operate distribution centers in Puerto Rico, Kentucky, California and the Netherlands for worldwide distribution of the majority of our commercial and clinical products. We also use third-party distributors to supplement distribution of our products worldwide.

Other

In addition to the manufacturing and distribution activities noted above, each of our manufacturing locations also includes key manufacturing support functions, including quality control, process development, engineering, procurement, production scheduling and warehousing. Certain of those manufacturing and distribution activities are highly regulated by the FDA as well as other international regulatory agencies. See Government Regulation—Regulation in the United States—Regulation of Manufacturing Standards.

Manufacturing Initiatives

We have multiple ongoing initiatives that are designed to extend our manufacturing advantage by optimizing our manufacturing network and/or mitigating risks while continuing to ensure adequate supply of our products.

In 2017, our next-generation biomanufacturing plant in Singapore was licensed by the FDA and the European Medicines Agency (EMA) for certain commercial-scale production. In 2019, we were approved to produce an additional product at that site. A next-generation biomanufacturing plant incorporates multiple innovative technologies into a single facility and therefore can be built in half the construction time with approximately half the operating cost of a traditional plant. Next-generation biomanufacturing plants require a smaller manufacturing footprint and offer greater environmental benefits, including reduced consumption of water and energy and lower levels of carbon emissions. Within the plants, the equipment is portable and smaller, and some components are disposable, which provides greater flexibility and speed when manufacturing different medicines simultaneously. This eliminates costly and complex retrofitting inherent in standard plants and allows Amgen to respond to changing demands for its medicines with increased agility, ultimately impacting the speed at which a medicine becomes available for patients. The Singapore site also has a plant that has been approved to produce small molecule drugs for commercial manufacturing.

In July 2018, we announced the groundbreaking of our newest next-generation biomanufacturing plant, which is being constructed at our West Greenwich, Rhode Island, campus. The new plant is expected to be the first of its kind in the United States and will use our next-generation biomanufacturing capabilities. After construction has been completed and upon approval by the FDA and other global regulatory authorities, this plant will expand our capacity to manufacture certain products for U.S. and global markets.

In 2019, we also initiated projects to expand our manufacturing capabilities in Thousand Oaks, California as well as at contract manufacturers. These investments will initially support clinical manufacturing, but in the future may also be leveraged for commercial manufacturing.

See Item 1A. Risk Factors—*Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.*

Raw Materials and Medical Devices

Certain raw materials, medical devices (including companion diagnostics) and components necessary for the commercial and/or clinical manufacturing of our products are provided by, and are the proprietary products of, unaffiliated third-party suppliers, certain of which may be our only sources for such materials. We currently attempt to manage the risk associated with such suppliers by inventory management, relationship management and evaluation of alternative sources when feasible. We also monitor the financial condition of certain suppliers and their ability to supply our needs. See Item 1A. Risk Factors—*We rely on third-party suppliers for certain of our raw materials, medical devices and components.*

We perform various procedures to help authenticate the source of raw materials, including intermediary materials used in the manufacture of our products, which include verification of the country of origin. The procedures are incorporated into the manufacturing processes we and our third-party contract manufacturers perform.

Government Regulation

Regulation by government authorities in the United States and other countries is a significant factor in the production and marketing of our products and our ongoing R&D activities. In order to clinically test, manufacture and market products for therapeutic use, we must satisfy mandatory procedures and safety and effectiveness standards established by various regulatory bodies. Compliance with these standards is complex, and failure to comply with any of these standards can result in significant implications. See Item 1A. Risk Factors for a discussion of factors, including global regulatory implications, that can adversely impact our development and marketing of commercial products.

Regulation in the United States

In the United States, the Public Health Service Act, the Federal Food, Drug, and Cosmetic Act (FDCA) and the regulations promulgated thereunder, as well as other federal and state statutes and regulations govern, among other things, the production, research, development, testing, manufacture, quality control, labeling, storage, record keeping, approval, advertising, promotion and distribution of our products in addition to the reporting of certain payments and other transfers of value to healthcare professionals and teaching hospitals.

Clinical Development and Product Approval. Drug development in our industry is complex, challenging and risky, and failure rates are high. Product development cycles are typically very long—approximately 10 to 15 years from discovery to market. A potential new medicine must undergo many years of preclinical and clinical testing to establish its safety and efficacy for use in humans at appropriate dosing levels and with an acceptable risk-benefit profile.

After laboratory analysis and preclinical testing in animals, we file an Investigational New Drug Application (IND) with the FDA to begin human testing. Typically, we undertake an FDA-designated three-phase human clinical testing program.

- In phase 1, we conduct small clinical trials to investigate the safety and proper dose ranges of our product candidates in a small number of human subjects.
- In phase 2, we conduct clinical trials to investigate side-effect profiles and the efficacy of our product candidates in a large number of patients who have the disease or condition under study.
- In phase 3, we conduct clinical trials to investigate the safety and efficacy of our product candidates in a large number of patients who have the disease or condition under study.

The FDA monitors the progress of each trial conducted under an IND and may, at its discretion, reevaluate, alter, suspend or terminate the testing based on the data accumulated to that point and the FDA's risk-benefit assessment with regard to the patients enrolled in the trial. The results of preclinical and clinical trials are submitted to the FDA in the form of either a BLA for biologic products or a New Drug Application for small molecule products. We are not permitted to market or promote a new product until the FDA has approved our marketing application.

Approval of Biosimilars. The ACA authorized the FDA to approve biosimilars via a separate, abbreviated pathway. The pathway allows sponsors of a biosimilar to seek and obtain regulatory approval based in part on the nonclinical and clinical trial data of an originator product to which the biosimilar has been demonstrated to be "highly similar" and to have no clinically meaningful differences in terms of safety, purity and potency. The relevance of demonstrating "similarity" is that in many cases, biosimilars can be brought to market without conducting the full suite of clinical trials typically required of originators, as risk-benefit has previously been established. In order to preserve incentives for future innovation, the law establishes a period of exclusivity for originators' products, which in general prohibits biosimilars from gaining FDA approval based in part on reliance on or reference to the originator's data in their application to the FDA for 12 years after initial FDA approval of the originator product. The law does not change the duration of patents granted on biologic products. The FDA has released a number of guidance documents as part of the implementation of the abbreviated approval pathway for biosimilars, some of which remain in draft form.

Regulation of Product Marketing and Promotion. The FDA regulates the marketing and promotion of drug products. Our product promotion for approved product indications must comply with the statutory standards of the FDCA and the FDA's implementing regulations and guidance. The FDA's review of marketing and promotional activities encompasses but is not limited to direct-to-consumer advertising, healthcare-provider-directed advertising and promotion, sales representative communications to healthcare professionals, promotional programming and promotional activities involving electronic media. The FDA may also review industry-sponsored scientific and educational activities that make representations regarding product safety or efficacy in a promotional context. The FDA may take enforcement action against a company for promoting unapproved uses of a product or for other violations of its advertising and labeling laws and regulations. Enforcement action may include product seizures, injunctions, civil or criminal penalties or regulatory letters, which may require corrective advertising or other corrective communications to healthcare professionals. Failure to comply with the FDA's regulations also can result in adverse publicity or increased scrutiny of company activities by the U.S. Congress or other legislators. Additionally, as described below, such failure may lead to additional liability under U.S. healthcare fraud and abuse laws.

Regulation of Manufacturing Standards. The FDA regulates and inspects equipment, facilities, laboratories and processes used in the manufacturing and testing of products prior to providing approval to market products. If after receiving approval from the FDA we make a material change in manufacturing equipment, location or process, additional regulatory review may be required. We also must adhere to current Good Manufacturing Practice regulations and product-specific regulations enforced by the FDA through its facilities inspection program. The FDA conducts regular, periodic visits to reinspect our equipment, facilities, laboratories and processes following an initial approval.

Regulation of Combination Products. Combination products are defined by the FDA to include products composed of two or more regulated components (e.g., a biologic and/or drug and a device). Biologics/drugs and devices each have their own regulatory requirements, and combination products may have additional requirements. A number of our marketed products meet this definition and are regulated under this framework, and we expect that a number of our pipeline product candidates will be evaluated for regulatory approval under this framework as well.

Regulation outside the United States

In EU countries as well as in Switzerland, Canada, Australia and Japan, regulatory requirements and approval processes are similar in principle to those in the United States.

In the EU, there are currently two potential tracks for seeking marketing approval for a product not authorized in any EU member state: a decentralized procedure and a centralized procedure. In the *decentralized procedure*, identical applications for marketing authorization are submitted simultaneously to the national regulatory agencies. Regulatory review is led by one member state (the reference-member state), and its assessment—based on safety, quality and efficacy—is reviewed and approved (assuming there are no concerns that the product poses a serious risk to public health) by the other member states from which the applicant is seeking approval (the concerned-member states). The decentralized procedure leads to a series of single national approvals in all relevant countries. In the *centralized procedure*, which is required of all products derived from biotechnology, a company submits a single MAA to the EMA, which conducts an evaluation of the dossier, drawing upon its scientific resources across Europe. If the drug product is proven to fulfill the requirements for quality, safety and efficacy, the EMA's Committee for Medicinal Products of Human Use (CHMP) adopts a positive opinion, which is transmitted to the EC for final decision on grant of the marketing authorization. While the EC generally follows the CHMP's opinion, it is not bound to do so. Subsequent commercialization is enabled by country-by-country reimbursement approval.

In the EU, biosimilars are approved under a specialized pathway of the centralized procedure. As with the U.S. pathway, applicants seek and obtain regulatory approval for a biosimilar once the data exclusivity period for the original reference product has expired relying in part on the data submitted for the originator product together with data evidencing that the biosimilar is "highly similar" in terms of quality, safety and efficacy to the original reference product authorized in the European Economic Area.

As a result of the United Kingdom's decision to leave the EU, the EMA, in March 2019, relocated to Amsterdam. While negotiations continue regarding the terms of the United Kingdom's withdrawal from the EU, the specific impact to the supervision, regulation and supply of medicines in the United Kingdom and Europe remain unclear.

Other countries such as Russia, Turkey and those in Latin America and the Middle East have review processes and data requirements similar to those of the EU and in some cases can rely on prior marketing approval from U.S. or EU regulatory authorities. The regulatory process in these countries may include manufacturing/testing facility inspections, testing of drug product upon importation and other domestic requirements.

In Asia Pacific, a number of countries such as China, Japan, South Korea and Taiwan may require local clinical trial data for bridging purposes as part of the drug registration process in addition to global clinical trials, which can add to overall drug development and registration timelines. In most of the Asian markets, registration timelines depend on marketing approval in the United States or the EU. In some markets in Asia, such as China, Indonesia and Thailand, the regulatory timelines can be less predictable. The regulatory process may also include manufacturing/testing facility inspections, testing of drug product upon importation and other domestic requirements. Countries such as Australia and Japan have more-mature systems that would allow for submissions in more competitive time frames. Regarding biosimilars, several of these countries have pathways to register biosimilars (e.g., Australia, India, Singapore, South Korea and Taiwan), and biosimilar products are already present on the markets (e.g., Australia and South Korea).

In some countries, such as Japan and those in the EU, medical devices may be subject to regulatory regimes whereby manufacturers must establish that their medical devices conform to essential requirements set out in the law for the particular device category. For example, in the EU, with limited exceptions, medical devices placed on the market must bear the Conformité Européenne marking to indicate their conformity with legal requirements.

Postapproval Phase

After approval, we continue to monitor adverse events and product complaints reported following the use of our products through routine post-marketing surveillance and studies when applicable. We report such events to the appropriate regulatory agencies as required per local regulations for individual cases and aggregate reports. We proactively monitor (according to good pharmacovigilance practices) and ensure implementation of signal detection, assessment and the communication of adverse events that may be associated with the use of our products. We also proactively monitor product complaints through our quality systems, which includes assessing our drug delivery devices for device complaints, adverse events and malfunctions. We may also be required by regulatory agencies to conduct further clinical trials on our marketed products as a condition of their approval or to provide additional information on safety and efficacy. Health authorities, including the FDA, have authority to mandate labeling changes to products at any point in a product's life cycle based on new safety information or as part of an evolving label change to a particular class of products.

Health authorities, including the FDA, also have the authority, before or after approval, to require companies to implement a risk management program for a product to ensure that the benefits of the drug outweigh the risks. Each risk management program is unique and varies depending on the specific factors required. In the United States, a risk management program is known as a risk evaluation and mitigation strategy (REMS), and we currently have REMSs for Prolia®, Nplate® and BLINCYTO®.

Other Regulation

We are also subject to various laws pertaining to healthcare fraud and abuse, including anti-kickback laws and false-claims laws. Anti-kickback laws make it illegal to solicit, offer, receive or pay any remuneration in exchange for or to induce the referral of business, including the purchase or prescribing of a particular drug that is reimbursed by a state or federal program. False-claims laws prohibit knowingly and willingly presenting or causing to be presented for payment to third-party payers (including Medicare and Medicaid), any claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and civil monetary penalties, as well as by the possibility of exclusion from federal healthcare programs (including Medicare and Medicaid). Liability under the false-claims laws may also arise when a violation of certain laws or regulations related to the underlying products (e.g., violations regarding improper promotional activity or unlawful payments) contributes to the submission of a false claim.

In 2012, Amgen entered into a corporate integrity agreement with the Office of Inspector General (OIG) of the U.S. Department of Health & Human Services (HHS), which was formally closed out in August 2018. On April 25, 2019, we entered into a settlement agreement with the U.S. Department of Justice (DOJ) and the OIG of the HHS to settle certain allegations related to our support of independent charitable organizations that provide patients with financial assistance to access their medicines. Additionally, we entered into a corporate integrity agreement that requires us to maintain a corporate compliance program and to undertake a set of defined corporate integrity obligations for a period of five years. Due to the breadth of the statutory provisions and the absence of guidance in the form of regulations or court decisions addressing some of our practices, it is possible that in the future, our practices might be further challenged under anti-kickback or similar laws.

The U.S. Foreign Corrupt Practices Act (FCPA) prohibits U.S. corporations and their representatives from offering, promising, authorizing or making payments to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business abroad. The scope of the FCPA arguably includes interactions with certain healthcare professionals in many countries. Other countries have enacted similar anti-corruption laws and/or regulations. Failure by our employees, agents, contractors, vendors, licensees, partners or collaborators to comply with FCPA and other anti-corruption laws and/or regulations could result in significant civil or criminal penalties.

We are subject to various laws and regulations globally regarding privacy and data protection. These laws and regulations relate to the collection, storage, handling, use, disclosure, transfer and security of personal data. The legislative and regulatory environment regarding privacy and data protection is continually evolving and developing, as these issues are the subjects of increasing amounts of attention in countries globally. For example, we are subject to the EU's General Data Protection Regulation (GDPR), which became effective on May 25, 2018, and the California Consumer Privacy Act of 2018, which became effective on January 1, 2020. Other jurisdictions where we operate have enacted or proposed similar legislation and/or regulations. Failure to comply with these laws could result in significant penalties.

Our business has been and will continue to be subject to various other U.S. and foreign laws, rules and regulations.

Research and Development and Selected Product Candidates

We focus our R&D on novel human therapeutics for the treatment of serious illness. We capitalize on our strengths in human genetics, novel biology and protein engineering. We leverage our biologic expertise and take a modality-independent approach to R&D. We use cutting-edge science and technology to study subtle biological mechanisms in search of therapies that will improve the lives of those who suffer from diseases.

Our discovery research programs may therefore yield targets that lead to the development of human therapeutics delivered as large molecules, small molecules, other combination modalities or new modalities. Leveraging more than two decades of research at deCODE, a global leader in analysis of the human genome, we are reshaping our portfolio and increasingly focusing efforts on validated targets. Human genetic validation is used whenever possible in order to enhance the likelihood of success.

We have continued to expand our genetics validation efforts as we believe it to be a strategic advantage by acquiring a DNA-encoded library drug discovery platform, which enables efficient discovery of novel small molecule drug candidates. The platform provides access to the screening of billions of molecules and efficient optimization of drug properties in the process of identifying the drug candidate. In addition, we announced a collaboration with a focus on discovering new connections between genetics and human disease and another collaboration to participate in a consortium to provide the whole-genome sequencing of approximately 500,000 participants in the United Kingdom.

Other collaborations entered into include: one to create custom-designed proteins to improve human health and another with BeiGene to advance 20 medicines from our innovative oncology pipeline in China and globally. We anticipate utilizing data from clinical trials conducted in China to advance the development of our oncology portfolio globally.

For the years ended December 31, 2019, 2018 and 2017, our R&D expenses were $4.1 billion, $3.7 billion and $3.6 billion, respectively.

We have major R&D centers in Thousand Oaks and San Francisco, California; Iceland; and the United Kingdom, as well as smaller research centers and development facilities globally. See Item 2. Properties.

Our clinical trial activities are conducted by both our internal staff and third-party contract clinical trial service providers. To increase the number of patients available for enrollment in our clinical trials, we have opened clinical sites and will continue opening clinical sites and enrolling patients in a number of geographic locations. See Government Regulation—Regulation in the United States—Clinical Development and Product Approval for a discussion of government regulation over clinical development. Also see Item 1A. Risk Factors—*We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications.*

Some of our competitors are actively engaged in R&D in areas in which we have products or in which we are developing product candidates or new indications for existing products. For example, we compete with other clinical trials for eligible patients, which may limit the number of available patients who meet the criteria for certain clinical trials. The competitive marketplace for our product candidates is greatly dependent on the timing of entry into the market. Early entry may have important advantages in gaining product acceptance, thereby contributing to a product's eventual success and profitability. Accordingly, we expect that in some cases, the relative speed with which we can develop products, complete clinical testing, receive regulatory approval and supply commercial quantities of a product to the market will be important to our competitive position.

In addition to product candidates and marketed products generated from our internal R&D efforts, we acquire companies, acquire and license certain product and R&D technology rights and establish R&D arrangements with third parties to enhance our strategic position within our industry by strengthening and diversifying our R&D capabilities, product pipeline and marketed product base. In pursuing these R&D arrangements and licensing or acquisition activities, we face competition from other pharmaceutical and biotechnology companies that also seek to license or acquire technologies, product candidates or marketed products from those entities performing the R&D.

The following table shows a selection of certain of our product candidates by phase of development in our therapeutic areas of focus as of February 11, 2020, unless otherwise indicated. Additional product candidate information can be found on our website at www.amgen.com. (The website address is not intended to function as a hyperlink, and the information contained on our website is not intended to be a part of this filing.) The information in this section does not include other, nonregistrational clinical trials that we may conduct for purposes other than for submission to regulatory agencies for their approval of a new product indication.

We may conduct nonregistrational clinical trials for various reasons, including to evaluate real-world outcomes or to collect additional safety information with regard to the use of our products.

Molecule	Disease/condition
Phase 3 programs	
EVENITY®	Male osteoporosis
IMLYGIC®	Metastatic melanoma
KYPROLIS®	Multiple myeloma
	Weekly dosing for relapsed multiple myeloma
Nplate®	Chemotherapy-induced thrombocytopenia
Omecamtiv mecarbil	Chronic heart failure
Otezla®	Behcet's disease
	Genital psoriasis
	Mild-to-moderate psoriasis
Repatha®	Cardiovascular disease
Tezepelumab	Severe asthma
ABP 798	Rheumatoid arthritis
	Non-Hodgkin's lymphoma
ABP 959	Paroxysmal nocturnal hemoglobinuria
Phase 2 programs	
Rozibafusp alfa (formerly AMG 570)	Systemic lupus erythematosus
Tezepelumab	Atopic dermatitis
	Chronic obstructive pulmonary disease
AMG 510	Solid tumors with KRAS mutations
AMG 714/PRV-015	Celiac disease
Phase 1 programs	
AMG 119	Small-cell lung cancer
AMG 160	Prostate cancer
AMG 171	Obesity
AMG 176	Hematologic malignancies
AMG 199	Metastatic gastric and gastroesophageal junction cancer
AMG 212	Prostate cancer
AMG 330	Acute myeloid leukemia
AMG 397	Hematologic malignancies
AMG 404	Solid tumors
AMG 420	Multiple myeloma
AMG 424	Multiple myeloma
AMG 427	Acute myeloid leukemia
AMG 430	Cystic fibrosis
AMG 506	Solid tumors
AMG 562	Non-Hodgkin's lymphoma
Efavaleukin alfa (formerly AMG 592)	Inflammatory diseases
AMG 594	Cardiovascular disease
AMG 596	Glioblastoma
AMG 673	Acute myeloid leukemia
AMG 701	Multiple myeloma
AMG 757	Small-cell lung cancer
AMG 890	Cardiovascular disease

Phase 3 Clinical trials investigate the safety and efficacy of product candidates in a large number of patients who have the disease or condition under study; typically performed with registrational intent.

Phase 2 Clinical trials investigate side-effect profiles and efficacy of product candidates in a large number of patients who have the disease or condition under study.

Phase 1 Clinical trials investigate the safety and proper dose ranges of product candidates in a small number of human subjects.

Phase 3 Product Candidate Program Changes

As of February 12, 2019, we had 12 phase 3 programs, including biosimilars. As of February 12, 2020, we had 14 phase 3 programs, as regulatory approvals were received for two programs, one program terminated, one study was completed, three programs initiated phase 3 studies and three programs were acquired from Celgene. These changes are set forth in the following table.

Molecule	Disease/condition	Program change
AVSOLA™	All approved indications for the reference product REMICADE® (infliximab)	Approved by the FDA
ENBREL	Rheumatoid arthritis remission	Study was completed
EVENITY®	Postmenopausal osteoporosis	Approved by the FDA and the EC
KYPROLIS®	Relapsed multiple myeloma	Initiated phase 3 study
Nplate®	Chemotherapy-induced thrombocytopenia	Initiated phase 3 study
Otezla®	Behcet's disease	Acquired from Celgene
	Genital psoriasis	Acquired from Celgene
	Mild-to-moderate psoriasis	Acquired from Celgene
Repatha®	Cardiovascular disease	Initiated phase 3 study
AMG 520/CNP 520	Alzheimer's disease	Terminated

Phase 3 Product Candidate Patent Information

The following table describes our composition-of-matter patents that have been issued thus far for our product candidates in phase 3 development that have yet to be approved for any indication in the United States or the EU. Patents for products already approved for one or more indications in the United States or the EU but that are currently undergoing phase 3 clinical trials for additional indications are previously described. See Marketing, Distribution and Selected Marketed Products—Patents.

Molecule	Territory	General subject matter	Estimated expiration*
Omecamtiv mecarbil	U.S.	Compound	2027
	Europe	Compound	2025
Tezepelumab	U.S.	Polypeptides	2029
	Europe	Polypeptides	2028

* Patent expiration estimates are based on issued patents, which may be challenged, invalidated or circumvented by competitors. The patent expiration estimates do not include any term adjustments, extensions or supplemental protection certificates that may be obtained in the future and thereby extend these dates. Corresponding patent applications are pending in other jurisdictions. Additional patents may be filed or issued and may provide additional exclusivity for the product candidate or its use.

Phase 3 and 2 Program Descriptions

The following provides additional information about selected product candidates that have advanced into human clinical trials.

EVENITY®

EVENITY® is a humanized monoclonal antibody that inhibits the action of sclerostin. It is being evaluated as a treatment for male osteoporosis. EVENITY® is being developed in collaboration with UCB.

In April 2019, we and UCB announced that the FDA approved EVENITY® for the treatment of osteoporosis in postmenopausal women at high risk for fracture.

In December 2019, we and UCB announced that the EC granted marketing authorization for EVENITY® for the treatment of severe osteoporosis in postmenopausal women at high risk of fracture.

IMLYGIC®

IMLYGIC® is an oncolytic immunotherapy derived from herpes simplex virus type 1.

A phase 1b/3 study to evaluate IMLYGIC® in combination with Merck & Co., Inc.'s anti-PD-1 therapy, KEYTRUDA® (pembrolizumab), in patients with mid-stage to late-stage metastatic melanoma is ongoing.

KYPROLIS®

KYPROLIS® is a small molecule proteasome inhibitor.

In September 2019, we announced that the phase 3 CANDOR study evaluating KYPROLIS® in combination with dexamethasone and DARZALEX® compared to KYPROLIS® and dexamethasone alone in patients with relapsed multiple myeloma met its primary endpoint of PFS. In addition, a phase 3 study comparing once-weekly versus twice-weekly carfilzomib with lenalidomide and dexamethasone in subjects with relapsed multiple myeloma is ongoing.

In January 2020, a sNDA was submitted to the FDA to expand the Prescribing Information to include KYPROLIS® in combination with dexamethasone and DARZALEX® for patients with relapsed or refractory multiple myeloma based on data from the phase 3 CANDOR study.

Nplate®

Nplate® is a thrombopoietin receptor agonist. It is being investigated in a phase 3 study for early chemotherapy-induced thrombocytopenia.

Omecamtiv mecarbil

Omecamtiv mecarbil is a small molecule selective cardiac myosin activator, also called a myotrope, which directly targets the contractile mechanisms of the heart. It is being investigated in phase 3 studies for the potential treatment of heart failure with reduced ejection fraction (HFrEF). Omecamtiv mecarbil is being developed under a collaboration between Amgen and Cytokinetics, with funding and strategic support from Servier.

Otezla®

Otezla® is a small molecule that inhibits phosphodiesterase 4. It is being investigated in phase 3 studies for the treatment of oral ulcers associated with Behcet's disease, severe genital psoriasis and mild-to-moderate plaque psoriasis.

Repatha®

Repatha® is a human monoclonal antibody that inhibits PCSK9. It is being investigated in the phase 3 VESALIUS-CV cardiovascular outcomes study in high-risk patients without prior heart attack or stroke.

Rozibafusp alfa

Rozibafusp alfa is a bispecific antibody peptide conjugate that targets the B lymphocyte stimulator (BAFF) and inducible costimulatory (ICOS) ligand. It is being investigated as a treatment for systemic lupus erythematosus.

Tezepelumab

Tezepelumab is a human monoclonal antibody that inhibits the action of thymic stromal lymphopoietin. It is being evaluated as a treatment for severe asthma in an ongoing phase 3 study. It is also being investigated in phase 2 studies for atopic dermatitis and chronic obstructive pulmonary disease. Tezepelumab is being developed jointly in collaboration with AstraZeneca plc (AstraZeneca).

AMG 510

AMG 510 is a KRAS G12C small molecule inhibitor. It is being investigated as a treatment for a variety of solid tumors, including NSCLC and colorectal cancer.

AMG 714/PRV-015

AMG 714/PRV-015 is a human monoclonal antibody that binds to interleukin-15. It is being investigated for the treatment of celiac disease. Amgen reacquired the AMG 714 program in 2017. AMG 714/PRV-015 is being developed jointly in collaboration with Provention Bio.

ABP 798

ABP 798, a biosimilar candidate to rituximab (Rituxan®/MabThera®), is an anti-CD20 monoclonal antibody. It is being investigated in a phase 3 study for rheumatoid arthritis and non-Hodgkin's lymphoma. The reference-product primary conditions are non-Hodgkin's lymphoma, chronic lymphocytic leukemia and rheumatoid arthritis. ABP 798 is being developed in collaboration with Allergan.

ABP 959

ABP 959, a biosimilar candidate to eculizumab (Soliris®), is a monoclonal antibody that specifically binds to the complement protein C5. It is being investigated in a phase 3 study for paroxysmal nocturnal hemoglobinuria (PNH). The reference-product primary conditions are PNH and atypical hemolytic uremic syndrome (aHUS).

Business Relationships

From time to time, we enter into business relationships, including joint ventures and collaborative arrangements, for the R&D, manufacture and/or commercialization of products and/or product candidates. In addition, we acquire product and R&D technology rights and establish R&D collaborations with third parties to enhance our strategic position within our industry by strengthening and diversifying our R&D capabilities, product pipeline and marketed product base. These arrangements generally provide for nonrefundable, upfront license fees, development and commercial-performance milestone payments, cost sharing, royalty payments and/or profit sharing. The activities under these collaboration agreements are performed with no guarantee of either technological or commercial success, and each is unique in nature.

Trade secret protection for our unpatented confidential and proprietary information is important to us. To protect our trade secrets, we generally require counterparties to execute confidentiality agreements upon commencement of a business relationship with us. However, others could either develop independently the same or similar information or unlawfully obtain access to our information.

Novartis

We are in a collaboration with Novartis to jointly develop and commercialize Aimovig®. In the United States, Amgen and Novartis jointly develop and collaborate on the commercialization of Aimovig®. Amgen, as the principal, recognizes product sales of Aimovig® in the United States, shares U.S. commercialization costs with Novartis and pays Novartis a significant royalty on net sales in the United States. Novartis holds global co-development rights and exclusive commercial rights outside the United States and Japan for Aimovig® and other specified migraine programs. Novartis pays Amgen double-digit royalties on net sales of the products in the Novartis exclusive territories and funds a portion of global R&D expenses. In addition, Novartis will make a payment to Amgen of up to $100 million if certain commercial and expenditure thresholds are achieved with respect to Aimovig® in the United States. Amgen manufactures and supplies Aimovig® worldwide.

We are currently involved in litigation with Novartis over our collaboration agreements for the development and commercialization of Aimovig®. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Bayer HealthCare LLC

We are in a collaboration with Bayer HealthCare LLC (Bayer) to jointly develop and commercialize Nexavar® (sorafenib). In 2015, we amended the terms of our collaboration agreement with Bayer, which terminated the co-promotion agreement in the United States and transferred all U.S. operational responsibilities to Bayer, including commercial and medical affairs activities. Prior to the termination of the co-promotion agreement, we co-promoted Nexavar® with Bayer and shared equally in the profits in the United States. In lieu of this profit share, Bayer now pays us a royalty on U.S. sales of Nexavar® at a percentage rate in the high 30s. Outside the United States and Japan, Bayer manages all commercialization activities and incurs all sales and marketing expenditures and mutually agreed R&D expenses, and we reimburse Bayer for half of those expenditures. In all countries outside the United States and Japan, we receive 50% of net profits on sales of Nexavar® after deducting certain Bayer-related costs. The rights to develop and market Nexavar® in Japan are reserved to Bayer.

DaVita Inc.

In January 2017, we entered into a six-year supply agreement with DaVita Inc. (DaVita), which superseded the previously existing, seven-year supply agreement that commenced in 2012. Pursuant to the 2017 agreement, we supply EPOGEN® and Aranesp® in amounts necessary to meet specified annual percentages of DaVita's and its affiliates' requirements for erythropoiesis-stimulating agents (ESAs) used in providing dialysis services in the United States and Puerto Rico. Such percentages vary during the term of the agreement, but in each year are at least 90%. The agreement expires in 2022. The agreement may be terminated by either party before expiration of its term in the event of certain breaches of the agreement by the other party.

Human Resources

As of December 31, 2019, Amgen had approximately 23,400 staff members. We consider our staff relations to be good.

Information about our Executive Officers

The executive officers of the Company as of February 12, 2020, are set forth below.

Mr. Robert A. Bradway, age 57, has served as a director of the Company since 2011 and Chairman of the Board of Directors since 2013. Mr. Bradway has been the Company's President since 2010 and Chief Executive Officer since 2012. From 2010 to 2012, Mr. Bradway served as the Company's President and Chief Operating Officer. Mr. Bradway joined the Company in 2006 as Vice President, Operations Strategy and served as Executive Vice President and Chief Financial Officer from 2007 to 2010. Prior to joining the Company, Mr. Bradway was a Managing Director at Morgan Stanley in London where, beginning in 2001, he had responsibility for the firm's banking department and corporate finance activities in Europe. Mr. Bradway has been a director of The Boeing Company, an aerospace company and manufacturer of commercial airplanes, defense, space and securities systems, since 2016. He has served on the board of trustees of the University of Southern California since 2014 and on the advisory board of the Leonard D. Schaeffer Center for Health Policy and Economics at that university since 2012. From 2011 to 2017, Mr. Bradway was a director of Norfolk Southern Corporation, a transportation company.

Mr. Murdo Gordon, age 53, became Executive Vice President, Global Commercial Operations, in 2018. Prior to joining the Company, Mr. Gordon was the Chief Commercial Officer at BMS from 2016 to 2018. Mr. Gordon served as Head of Worldwide Markets at BMS from 2015 to 2016. Prior to this, Mr. Gordon served in a variety of leadership roles at BMS for more than 25 years.

Mr. Jonathan P. Graham, age 59, became Executive Vice President, General Counsel and Secretary in 2019. Mr. Graham joined the Company in 2015. From 2015 to 2019, Mr. Graham was Senior Vice President, General Counsel and Secretary. Prior to joining Amgen, from 2006 to 2015, Mr. Graham was Senior Vice President and General Counsel at Danaher Corporation. From 2004 to 2006, Mr. Graham was Vice President, Litigation and Legal Policy at General Electric Company (GE). Prior to GE, Mr. Graham was a partner at Williams & Connolly LLP.

Mr. Peter H. Griffith, age 61, became Executive Vice President and Chief Financial Officer in 2020. Mr. Griffith joined the Company in 2019 as Executive Vice President, Finance. Prior to joining Amgen, Mr. Griffith was President of Sherwood Canyon Group, LLC. From 1997 to 2019, Mr. Griffith was a Partner at EY (formerly Ernst & Young) and served in a variety of senior leadership roles, with his last position being Global Vice Chair, Corporate Development. Prior to EY, Mr. Griffith was a Managing Director and head of the investment banking division of Wedbush Securities Inc.

Ms. Lori A. Johnston, age 55, became Executive Vice President, Human Resources, in 2019. From 2016 to 2019, Ms. Johnston served as the Company's Senior Vice President, Human Resources. From 2012 to 2016, Ms. Johnston was Executive Vice President and Chief Administrative Officer of Celanese Corporation (Celanese). Prior to Celanese, Ms. Johnston served in a series of progressive leadership roles at Amgen from 2001 to 2012, with her last position being Vice President, Human Resources. Prior to joining the Company, Ms. Johnston held human resources and other positions at Dell Inc.

Ms. Cynthia M. Patton, age 58, became Senior Vice President and Chief Compliance Officer in 2012. Ms. Patton joined the Company in 2005. From 2005 to 2010, Ms. Patton was Associate General Counsel. From 2010 to 2012, Ms. Patton was Vice President, Law. Prior to joining the Company, Ms. Patton served as Senior Vice President, General Counsel and Secretary of SCAN Health Plan from 1999 to 2005.

Mr. David A. Piacquad, age 63, became Senior Vice President, Business Development in 2014. Mr. Piacquad joined the Company in 2010 and served as Vice President, Strategy and Corporate Development until his appointment to the role of Vice President, Business Development in 2014. Prior to joining the Company, from 2009 to 2010, Mr. Piacquad was Principal of David A. Piacquad Consulting LLC. From 2006 to 2009, Mr. Piacquad served as Senior Vice President, Business Development and Licensing, for Schering-Plough Corporation (Schering-Plough). Prior to Schering-Plough, Mr. Piacquad served in a series of leadership roles in finance and business development at J&J, with his last position being Vice President, Ventures and Business Development.

Dr. David M. Reese, age 57, became Executive Vice President, R&D, in 2018. Dr. Reese joined the Company in 2005 and has held leadership roles in development, medical sciences and discovery research. Dr. Reese was Senior Vice President, Translational Sciences and Oncology from 2017 to 2018 and Senior Vice President, Translational Sciences from 2015 to 2017. Prior to joining Amgen, Dr. Reese was director of Clinical Research for the Breast Cancer International Research Group from 2001 to 2003 and a cofounder, president and chief medical officer of Translational Oncology Research International, a not-for-profit academic clinical research organization, from 2003 to 2005. Dr. Reese previously served on the faculty at University of California, Los Angeles, and the University of California, San Francisco.

Mr. Esteban Santos, age 52, became Executive Vice President, Operations in 2016. Mr. Santos joined the Company in 2007 as Executive Director, Manufacturing Technologies. From 2008 to 2013, Mr. Santos held a number of vice president roles at the Company in engineering, manufacturing, site operations and drug product. From 2013 to 2016, Mr. Santos was Senior Vice President, Manufacturing. Prior to joining the Company, Mr. Santos served as Site General Manager of J&J Cordis operation in Puerto Rico. Prior to J&J, Mr. Santos held several management positions in GE's industrial and transportation businesses.

Geographic Area Financial Information

For financial information concerning the geographic areas in which we operate, see Part IV—Note 3, Revenues and Note 11, Property, plant and equipment, to the Consolidated Financial Statements.

Investor Information

Financial and other information about us is available on our website at www.amgen.com. We make available on our website, free of charge, copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with or furnish it to the U.S. Securities and Exchange Commission (SEC). In addition, we have previously filed registration statements and other documents with the SEC. Any document we file may be inspected without charge at the SEC's website at www.sec.gov. (These website addresses are not intended to function as hyperlinks, and the information contained in our website and in the SEC's website is not intended to be a part of this filing.)

Item 1A. RISK FACTORS

This report and other documents we file with the SEC contain forward-looking statements that are based on current expectations, estimates, forecasts and projections about us, our future performance, our business, our beliefs and our management's assumptions. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. You should carefully consider the risks and uncertainties our business faces. The risks described below are not the only ones we face. Our business is also subject to the risks that affect many other companies, such as employment relations, general economic conditions, geopolitical events and international operations. Further, additional risks not currently known to us or that we currently believe are immaterial may in the future materially and adversely affect our business, operations, liquidity and stock price.

Our sales depend on coverage and reimbursement from third-party payers, and pricing and reimbursement pressures may affect our profitability.

Sales of our products depend on the availability and extent of coverage and reimbursement from third-party payers, including government healthcare programs and private insurance plans. Governments and private payers continue to pursue initiatives to manage drug utilization and contain costs. These payers are increasingly focused on the effectiveness, benefits and costs of similar treatments, which could result for our products in lower reimbursement rates or narrower populations for whom payers will reimburse. Continued intense public scrutiny of the price of drugs and other healthcare costs, together with payer dynamics, may limit our ability to set or adjust the price of our products based on their value, which could have a material adverse effect on our business. In the United States, a number of legislative and regulatory proposals have been introduced in an attempt to lower drug prices. These include proposals that would, for example, allow the U.S. government to negotiate directly on drug prices, limit drug prices based on prices abroad or permit importation of drugs from Canada. Proposals addressing drug pricing are likely to continue to be introduced and may be adopted and implemented in some form.

—Changing U.S. federal coverage and reimbursement policies and practices have affected and may continue to affect access to and sales of our products

A substantial portion of our U.S. business relies on reimbursement from federal government healthcare programs and commercial insurance plans regulated by federal and state governments. See Item 1. Business—Reimbursement. Our business has and will continue to be affected by legislative actions changing U.S. federal reimbursement policy. For example, beginning in 2019, legislation requiring biopharmaceutical manufacturers to provide greater discounts on products dispensed to patients in the coverage gap between the initial coverage limit of Medicare Part D and the program's catastrophic-coverage threshold has, and will continue to, reduce our net product sales relating to such patients. Further, following the change of party control of the U.S. House of Representatives in November 2018, Congressional focus on drug pricing has increased, placing our industry under greater Congressional scrutiny. For example, in January 2019, the chair of the House Oversight and Reform Committee sent letters to twelve different biopharmaceutical manufacturers, including Amgen, seeking documents and detailed information about such companies' drug-pricing practices. A number of other Congressional committees have also held hearings and evaluated proposed legislation on drug-pricing and payment policy. For example, in July 2019, the Senate Finance Committee advanced a bill that would, among other things, penalize pharmaceutical manufacturers for raising prices on drugs covered by Medicare Parts B and

D faster than the rate of inflation, cap out-of-pocket expenses for Medicare Part D beneficiaries and require higher/additional manufacturer discounts in Medicare Part D. In December 2019, a drug-pricing bill, H.R. 3, passed the House of Representatives, which would, among other things, enable direct price negotiations by the federal government on certain drugs (with the maximum price paid by Medicare capped based on an international index), include a penalty for failing to reach agreement with the government and require that manufacturers offer these negotiated prices to other payers. Additional legislative or regulatory proposals have been introduced by members of Congress or the Administration that, if enacted and implemented, could also affect access to and sales of our products, including but not limited to proposals to overhaul provisions of the ACA, to allow importation of prescription medications from Canada or other countries and to base Medicare payment rates on an international index price. We expect continued significant focus on health care and drug-pricing legislation through 2020 leading up to the November U.S. presidential election and beyond.

Also, our business has been, and is expected to continue to be, affected by changes in U.S. federal reimbursement policy resulting from executive actions, federal regulations and federal demonstration projects. For example, the Administration's drug-pricing blueprint released in May 2018 contains an array of policy ideas intended to increase competition, improve the negotiating power of the federal government, reduce drug prices and lower patient out-of-pocket costs with the potential to significantly affect, whether individually or collectively, our industry. Such policy ideas include, but are not limited to, moving coverage and reimbursement for Medicare Part B drugs into Medicare Part D and instituting a competitive acquisition program for Part B drugs in which competing third-party vendors take on the financial risk of acquiring drugs and billing Medicare.

Since the release of the Administration's drug-pricing blueprint, the Administration and federal agencies, including the CMS, have announced a number of demonstration projects, recommendations, policies and proposals to implement various elements of the blueprint. CMS is the federal agency responsible for administering Medicare and overseeing state Medicaid programs and Health Insurance Marketplaces and has substantial power to implement policy changes or demonstration projects that can quickly and significantly affect how drugs, including our products, are covered and reimbursed. For example, in late 2018, CMS began evaluating a pilot program that would initially, among other things, include fifty percent of Medicare Part B single source drugs and set payment amounts to more closely align with international drug prices, and in June 2019, Administration officials announced that the Office of Management and Budget was in the process of reviewing a draft proposed rule to implement this model. CMS has also issued guidance to allow certain Medicare plans offered by private insurance companies to require that patients receiving Medicare Part B drugs first try a drug preferred by the plan before covering another therapy (Step Therapy) and lowered reimbursement rates for new Medicare Part B drugs. Congress is also interested in exploring solutions that may move biopharmaceutical manufacturers from back-end rebate agreements with PBMs to front-end discounts. In December 2019, the Administration released a proposed rule to allow states (or other non-federal government entities) to submit proposals to the FDA allowing for the importation of certain prescription drugs from Canada. Such a rule could subject some of our product to importation.

Separate from the drug-pricing blueprint, CMS policy changes and demonstration projects to test new care, delivery and payment models can significantly affect how drugs, including our products, are covered and reimbursed. In ESRD, CMS uses a bundled payment system. Since 2018, Sensipar® and Parsabiv®, which are used in dialysis clinics and are curently outside of the bundled payment system, have been eligible for temporary drug add-on payment adjustments (TDAPA) and will continue to be eligible in 2020. CMS is expected to release details in 2020 on the rate setting analysis that it will conduct to determine whether and how CMS would adjust ESRD Prospective Payment System base rates to account for calcimimetics after the TDAPA for calcimimetics ends, which is expected in 2021. Additionally, in July 2019, CMS released a proposed rule creating a new mandatory payment model focused on encouraging greater use of home dialysis and kidney transplants for ESRD patients that, if finalized as proposed, could result in changes to treatment of dialysis patients, including reduction of the use of our ESAs. In November 2019, CMS announced additional voluntary payment models for nephrologists and dialysis facility partners that also seek to encourage home dialysis and preemptive transplantation through increased risk sharing beginning in 2021. CMS has also solicited suggestions regarding other potential care models. CMS initiated in 2016 the Oncology Care Model demonstration, which provides participating physician practices with performance-based financial incentives that aim to manage or reduce Medicare costs without negatively affecting the efficacy of care. We believe the Oncology Care Model has reduced utilization of certain of our oncology products by participating physician practices and expect it to continue to do so in the future. Additionally, in November 2019, CMS announced a request for information on the Oncology Care First model, a new voluntary model that builds on the Oncology Care Model that would be slated to begin in January 2021.

In this dynamic environment, we are unable to predict which or how many of these various federal policy, legislative, regulatory, executive or administrative changes may ultimately be enacted and implemented. However, to the extent that these or other federal government initiatives further decrease or modify the coverage or reimbursement available for our products, require that we pay increased rebates or shift other costs to us, limit or affect our decisions regarding the pricing of or otherwise reduce the use of our U.S. products, or limit our ability to offer co-pay payment assistance to commercial patients, such actions could have a material adverse effect on our business and results of operations.

We also face risks relating to the reporting of pricing data that affects the reimbursement of and discounts provided for our products. U.S. government price reporting regulations are complex and may require a biopharmaceutical manufacturer to update certain previously submitted data. If our submitted pricing data are incorrect, we may become subject to substantial fines and penalties or other government enforcement actions, which could have a material adverse effect on our business and results of operations. In addition, as a result of restating previously reported price data, we also may be required to pay additional rebates and provide additional discounts.

—Changing reimbursement and pricing actions in various states may negatively affect access to and have affected and may continue to affect sales of our products

At the state level, government actions or ballot initiatives can also affect how our products are covered and reimbursed and/or create additional pressure on our pricing decisions. A number of states have adopted, and many other states are considering, drug importation programs or other new pricing actions, including proposals designed to require biopharmaceutical manufacturers publicly to report proprietary pricing information, limit price increases or to place a maximum price ceiling or cap on biopharmaceutical products. Existing and proposed state pricing laws have added complexity to the pricing of drugs and may already be affecting industry pricing decisions. For example, in late 2017, California enacted a drug-pricing transparency bill that requires biopharmaceutical manufacturers to notify health insurers and government health plans at least 60 days before scheduled prescription drug price increases that exceed certain thresholds. Similar laws in Oregon and Washington were passed in 2019. States are also seeking to change the way they pay for drugs for patients covered by state programs. In January 2019, California's governor issued an executive order expanding state Medicaid coverage and directing its agencies and programs to develop a plan to consolidate drug purchases and to negotiate drug prices with biopharmaceutical manufacturers. Additionally, New York, Massachusetts and Ohio have established Medicaid drug spending caps. Additionally, Colorado, Florida, Maine and Vermont, have enacted laws, and several other states have proposed laws, to facilitate the importation of drugs from Canada. Other states could adopt similar approaches or could pursue different policy changes in a continuing effort to reduce their costs. Ultimately, as with U.S. federal government actions, existing or future state government actions or ballot initiatives may also have a material adverse effect on our product sales, business and results of operations.

—U.S. commercial payer actions have affected and may continue to affect access to and sales of our products

Payers, including healthcare insurers, PBMs, integrated healthcare delivery systems (vertically-integrated organizations built from the consolidation of healthcare insurers and PBMs) and group purchasing organizations, increasingly seek ways to reduce their costs. With increasing frequency, payers are adopting benefit plan changes that shift a greater portion of drug costs to patients. Such measures include more limited benefit plan designs, high deductible plans, higher patient co-pay or coinsurance obligations and more significant limitations on patients' use of manufacturer commercial co-pay payment assistance programs (including through co-pay accumulator adjustment or maximization programs). Payers have sought and will likely continue to seek price discounts or rebates in connection with the placement of our products on their formularies or those they manage, particularly in treatment areas where the payer has taken the position that multiple branded products are therapeutically comparable. Payers also control costs by imposing restrictions on access to or usage of our products, such as Step Therapy or requiring that patients receive the payer's prior authorization before covering the product or that patients use a mail-order pharmacy or a limited network of payer fully-owned mail-order or specialty pharmacies; payers may also choose to exclude certain indications for which our products are approved or even choose to exclude coverage entirely. For example, some payers require physicians to demonstrate or document that the patients for whom Repatha® has been prescribed meet payer utilization management criteria, and these requirements have limited, and may continue to limit, patient access to Repatha® treatment. In an effort to reduce barriers to access, we reduced the net price of Repatha® by providing greater discounts and rebates to payers, including PBMs that administer Medicare Part D prescription drug plans. However, affordability of patient out-of-pocket co-pay cost has and may continue to limit patient use. For example, a very high percentage of Medicare patients abandoned their Repatha® prescriptions rather than pay their co-pay payment. In late 2018 and early 2019, we introduced a set of new National Drug Codes to make Repatha® available at a lower list price to attempt to address affordability for patients, particularly those on Medicare and on December 31, 2019 we discontinued the higher list price option for Repatha®. Despite these net and list price reductions, some payers have restricted and may continue to restrict patient access and may change formulary coverage for Repatha®, seek further discounts or rebates or take other actions that could reduce our sales of Repatha®. These factors have limited, and may continue to limit, patient affordability and use and negatively affect Repatha® sales.

Further, significant consolidation in the health insurance industry has resulted in a few large insurers and PBMs which places greater pressure on pricing and usage negotiations with biopharmaceutical manufacturers, significantly increasing discounts and rebates requirements and limiting patient access and usage. For example, in the United States, in 2018, the top three PBMs oversaw greater than two-thirds of prescription claims as well as government and commercial covered lives. The consolidation among insurers, PBMs and other payers, including through integrated healthcare delivery systems and/or with specialty or mail-order pharmacies and pharmacy retailers, has increased the negotiating leverage such entities have over us and other biopharmaceutical manufacturers and has resulted in greater price discounts, rebates and service fees realized by those payers. Also in 2018, two of

the nation's largest PBMs, Express Scripts and CVS Health, completed their combinations with major insurance companies Cigna and Aetna, respectively. Additional consolidation would further increase the leverage of such entities. Ultimately, additional discounts, rebates, fees, coverage or plan changes, restrictions or exclusions imposed by these commercial payers could have a material adverse effect on our product sales, business and results of operations. Policy reforms advanced by Congress or the Administration that refine the role of PBMs in the U.S. marketplace could have downstream implications or consequences for our business and how we interact with these entities.

—Government and commercial payer actions outside the United States have affected and will continue to affect access to and sales of our products

Outside the United States, we expect countries will continue to take actions to reduce their drug expenditures. See Item 1. Business—Reimbursement. International reference pricing (IRP) has been widely used by many countries outside the United States to control costs based on an external benchmark of a product's price in other countries. IRP policies can change quickly and frequently and may not reflect differences in the burden of disease, indications, market structures, or affordability differences across countries or regions. In addition, countries may refuse to reimburse or may restrict the reimbursed population for a product when their national health technology assessments do not consider a medicine to demonstrate sufficient clinical benefit beyond existing therapies or to meet certain cost effectiveness thresholds. For example, despite the EMA's approval of Repatha® for the treatment of patients with established atherosclerotic disease, the reimbursement for Repatha® in France is limited to a narrower patient population (such as those with homozygous familial hypercholesterolemia) following a national health technology assessment. While the pricing and reimbursement process in that country remains ongoing, the assessment currently limits our efforts in France to expand Repatha® access to the broader patient population covered by the approved label. Some countries decide on reimbursement between potentially competing products through national or regional tenders that often result in one product receiving most or all of the sales in that country or region. Failure to obtain coverage and reimbursement for our products, a deterioration in their existing coverage and reimbursement, or a decline in the timeliness or certainty of payment by payers to physicians and other providers has affected and may further negatively affect the ability or willingness of healthcare providers to prescribe our products for their patients and otherwise negatively affect the use of our products or the prices we realize for them. Such changes have had, and could in the future have, a material adverse effect on our product sales, business and results of operations.

We currently face competition from biosimilars and expect to face increasing competition from biosimilars and generics in the future.

We currently face competition from biosimilars in Europe, the United States and Canada and from generics in the United States, and we expect to face increasing biosimilar and/or generics competition this year and beyond. Expiration or successful challenge of applicable patent rights or expiration of an applicable exclusivity period has accelerated such competition, and we expect to face more litigation regarding the validity and/or scope of our patents. Our products have also experienced greater competition from lower cost biosimilars or generics that come to market when branded products that compete with our products lose their own patent protection. To the extent that governments adopt more permissive regulatory approval standards and competitors are able to obtain broader or expedited marketing approval for biosimilars and generics, the rate of increased competition for our products could accelerate.

In the EU, biosimilars are evaluated for marketing authorization pursuant to a set of general and product class-specific guidelines. In addition, in an effort to spur biosimilar utilization and/or increase potential healthcare savings, some EU countries and some Canadian provinces have adopted or are considering the adoption of biosimilar uptake measures such as physician prescribing quotas or automatic pharmacy substitution of biosimilars for the corresponding reference products. Some EU countries impose automatic price reductions upon market entry of one or more biosimilar competitors. While the degree of competitive effects of biosimilar competition differs between EU countries and between products, in the EU the overall use of biosimilars and the rate at which product sales of innovative products are being affected by biosimilar competition is increasing.

In the United States, the Biologics Price Competition and Innovation Act of 2009 authorized the FDA to approve biosimilars via a separate, abbreviated pathway. See Item 1. Business—Government Regulation—Regulation in the United States—Approval of Biosimilars. The first biosimilar entrant into the U.S. market was Sandoz's Zarxio®, a biosimilar version of NEUPOGEN®, in 2015. Since then, the FDA has approved additional biosimilars, including biosimilar versions of ENBREL, Neulasta® and EPOGEN®, and a growing number of companies have announced that they are also developing biosimilar versions of our products. Three biosimilar versions of Neulasta® are now marketed in the United States and we expect other biosimilar versions of Neulasta® to receive approval in 2020. Impact to our Neulasta® sales has accelerated as additional competitors have launched. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. An approved biosimilar version of EPOGEN® has also launched in the United States, and we are currently involved in patent litigations with the manufacturers of the approved biosimilar versions of ENBREL. Manufacturers of biosimilars have attempted, and may in the future attempt, to compete with our products by offering lower list prices, greater discounts or rebates, or contracts that offer longer-term pricing or a broader portfolio of other products. Companies pursuing development of biosimilar versions of our products have challenged and may continue to challenge our patents well in advance of the expiration of our material patents. For information related to our biosimilars and generics patent litigation, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. See *Our intellectual property positions may be challenged, invalidated or circumvented, or we may fail to prevail in current and future intellectual property litigation.*

The U.S. pathway includes the option for biosimilar products that meet certain criteria to be approved as interchangeable with their reference products. Some companies currently developing or already marketing biosimilars may seek to obtain interchangeable status from the FDA, which could potentially allow pharmacists to substitute those biosimilars for our reference products without prior approval from the prescriber in some states. In November 2019, the FDA issued draft guidance that provides that comparative immunogenicity studies will not generally be expected for biosimilar and interchangeable insulin products. This may open the door for other product-specific guidance development and the removal of the expectation for certain studies, which may contribute to increased biosimilar competition for our innovative products.

In addition, critics of the 12-year exclusivity period in the biosimilar pathway law will likely continue to seek to shorten the data exclusivity period and/or to encourage the FDA to interpret narrowly the law's provisions regarding which new products receive data exclusivity. In December 2019, the Administration agreed to remove from the United States-Mexico-Canada Agreement a requirement for at least 10 years of data exclusivity for biologic products. Also, the FDA is considering whether subsequent changes to a licensed biologic would be protected by the remainder of the reference product's original 12-year exclusivity period (a concept known in the generic drug context as "umbrella exclusivity"). If the FDA were to decide that umbrella exclusivity does not apply to biological reference products or were to make other changes to the exclusivity period, this could expose us to biosimilar competition at an earlier time. There also have been, and may continue to be, legislative and regulatory efforts to promote competition through policies enabling easier generic and biosimilar approval and commercialization, including efforts to lower standards for demonstrating biosimilarity or interchangeability, limit patents that may be litigated and/or patent settlements and implement preferential reimbursement policies for biosimilars.

Upon the expiration or loss of patent protection for one of our small molecule products, we can lose the majority of revenues for that product in a very short period of time. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. Additionally, if one of our small molecule products is the subject of an FDA Written Request for pediatric studies and we are unable to adequately complete these studies, we may not obtain the pediatric exclusivity award that extends existing patents for the product by an additional six months. Our U.S. composition-of-matter patent for Sensipar®, a small molecule product, expired in March 2018. We are engaged in litigation with a number of companies seeking to market generic cinacalcet products surrounding our U.S. formulation patent that expires in September 2026. Several of these generic products have been approved by the FDA, and the manufacturer of one of the approved generic products began selling its product in late 2018 before reaching a settlement agreement with us in early January 2019. Our current litigation also includes disputes with a number of other manufacturers that began selling their approved generic cinacalcet products in the United States in early 2019. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. If we do not prevail in these matters, these manufacturers and other companies may be able to launch their approved generic products into the U.S. market. In addition, even before the resolution of our ongoing litigation, a number of other companies have elected to launch their approved generic products at risk or have sought and obtained a judicial declaration that they are permitted to launch their generic products. As a result of the product already introduced and/or that could further be introduced into the U.S. market, our product sales for Sensipar® have been adversely affected and could be further materially and adversely affected.

California is the first state to have passed legislation, effective on January 1, 2020, against "pay for delay" settlements of patent infringement claims filed by manufacturers of generics or biosimilars where anything of value is given in exchange for settlement. Under this newly-passed legislation, such settlement agreements are presumptively anticompetitive. The legislation may result in prolonged litigation and fewer settlements.

While we are unable to predict the precise effects of biosimilars and generics on our products, we are currently facing and expect to face greater competition in the United States, Europe and elsewhere this year and beyond as a result of biosimilar and generic competition and downward pressure on our product prices and sales. This competition has had and could increasingly have a material adverse effect on our product sales, business and results of operations.

Our products face substantial competition.

We operate in a highly competitive environment. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. We expect that our products will compete with new drugs currently in development, drugs currently approved for other indications that may later be approved for the same indications as those of our products and drugs approved for other indications that are used off-label. Large pharmaceutical companies and generics manufacturers of pharmaceutical products are expanding into the biotechnology field, and some pharmaceutical companies and generics manufacturers have formed partnerships to pursue biosimilars. In addition, some of our competitors may have technical, competitive or other advantages over us for the development of technologies and processes or greater experience in particular therapeutic areas, and consolidation among pharmaceutical and biotechnology companies can enhance such advantages. These advantages may make it difficult for us to compete with them successfully to discover, develop and market new products and for our current products to compete with new products or new product indications they may bring to market. As a result, our products have been competing and may continue to compete against products that offer higher rebates or discounts, lower prices, equivalent or superior efficacy, better safety profiles, easier administration, earlier market availability or other competitive features. If we are unable to compete effectively, this could reduce sales, which could have a material adverse effect on our business and results of operations.

Our intellectual property positions may be challenged, invalidated or circumvented, or we may fail to prevail in current and future intellectual property litigation.

Our success depends in part on our ability to obtain and defend patent rights and other intellectual property rights that are important to the commercialization of our products and product candidates. The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and often involve complex legal, scientific and factual questions. Driven by cost pressures, efforts to limit or weaken patent protection for our industry are increasing. Third parties have challenged and may continue to challenge, invalidate or circumvent our patents and patent applications relating to our products, product candidates and technologies. Challenges to patents may come from potential competitors or from parties other than those who seek to market a potentially-infringing product. In addition, our patent positions might not protect us against competitors with similar products or technologies because competing products or technologies may not infringe our patents. For certain of our product candidates, there are third parties who have patents or pending patent applications that they may claim necessitate payment of a royalty or prevent us from commercializing these product candidates in certain territories. Patent disputes are frequent, costly and can preclude, delay or increase the cost of commercialization of products. We have been in the past, are currently and expect to be in the future, involved in patent litigation. These matters have included, and may in the future include, litigation with manufacturers of products that purport to be biosimilars of certain of our products for patent infringement and for failure to comply with certain provisions of the Biologics Price Competition and Innovation Act. A determination made by a court, agency or tribunal concerning infringement, validity, enforceability, injunctive or economic remedy, or the right to patent protection, for example, are typically subject to appellate or administrative review. Upon review, such initial determinations may be afforded little or no deference by the reviewing tribunal and may be affirmed, reversed or made the subject of reconsideration through further proceedings. A patent dispute or litigation has not discouraged, and may not in the future discourage, a potential violator from bringing the allegedly-infringing product to market prior to a final resolution of the dispute or litigation. The period from inception until resolution of a patent dispute or litigation is subject to the availability and schedule of the court, agency or tribunal before which the dispute or litigation is pending. We have been, and may in the future be, subject to competition during this period and may not be able to recover fully from the losses, damages and harms we incur from infringement by the competitor product even if we prevail. Moreover, if we lose or settle current or future litigations at certain stages or entirely, we could be subject to competition and/or significant liabilities, be required to enter into third-party licenses for the infringed product or technology or be required to cease using the technology or product in dispute. In addition, we cannot guarantee that such licenses will be available on terms acceptable to us, or at all.

Further, under the Hatch-Waxman Act, our products approved by the FDA under the FDCA have been, and may in the future be, the subject of patent litigation with generics competitors before expiry of the five-year period of data exclusivity provided for under the Hatch-Waxman Act and prior to the expiration of the patents listed for the product. Likewise, our innovative biologic products have been, and may in the future be, the subject of patent litigation prior to the expiration of our patents and, with respect to competitors seeking approval as a biosimilar or interchangeable version of our products, prior to the 12-year exclusivity period provided under the ACA. In addition, we are facing patent litigation involving claims that the biosimilar product candidates we are working to develop infringe the patents of other companies, including those that manufacture, market or sell the applicable reference products or who are developing or have developed other biosimilar versions of such products. For example, we are currently engaged in litigation in the United States regarding MVASI™ and KANJINTI™. While we have attempted, and may

continue to attempt, to challenge the patents held by other companies, our efforts may be unsuccessful. Alternatively, such patents have contributed, and may in the future contribute, to a decision by us to not pursue all of the same labeled indications as are held by these companies. For information related to our patent litigation, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Certain of the existing patents on our products have expired. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Patents. As our patents expire, competitors are able to legally produce and market similar products or technologies, including biosimilars, which has had, and may continue to have, a material adverse effect on our product sales, business and results of operations. In addition, competitors have been, and may continue to be, able to invalidate, design around or otherwise circumvent our patents and sell competing products.

Guidelines and recommendations published by various organizations can reduce the use of our products.

Government agencies promulgate regulations and guidelines directly applicable to us and to our products. Professional societies, practice management groups, insurance carriers, physicians' groups, private health and science foundations and organizations involved in various diseases also publish guidelines and recommendations to healthcare providers, administrators and payers, as well as patient communities. Recommendations by government agencies or other groups and organizations may relate to such matters as usage, dosage, route of administration and use of related therapies. In addition, a growing number of organizations are providing assessments of the value and pricing of biopharmaceutical products, and even organizations whose guidelines have historically been focused on clinical matters have begun to incorporate analyses of the cost effectiveness of various treatments into their treatment guidelines and recommendations. Value assessments may come from private organizations that publish their findings and offer recommendations relating to the products' reimbursement by government and private payers. Some companies and payers have announced pricing and payment decisions based in part on the assessments of private organizations. For example, CVS Caremark indicated in August 2018 that it will begin utilizing third-party cost effectiveness analyses to make formulary and coverage determinations for newly-approved drugs. In addition, government health technology assessment organizations in many countries make reimbursement recommendations to payers in their jurisdictions based on the clinical effectiveness, cost-effectiveness and service effects of new, emerging and existing medicines and treatments. Such health technology assessment organizations have recommended, and may in the future recommend, reimbursement for certain of our products for a narrower indication than was approved by applicable regulatory agencies or may recommend against reimbursement entirely. Such recommendations or guidelines may affect our reputation, and any recommendations or guidelines that result in decreased use, dosage or reimbursement of our products could have a material adverse effect on our product sales, business and results of operations. In addition, the perception by the investment community or stockholders that such recommendations or guidelines will result in decreased use and dosage of our products could adversely affect the market price of our common stock.

Our current products and products in development cannot be sold without regulatory approval.

Our business is subject to extensive regulation by numerous state and federal government authorities in the United States, including the FDA, and by foreign regulatory authorities, including the EMA. We are required in the United States and in foreign countries to obtain approval from regulatory authorities before we manufacture, market and sell our products. Once our products are approved, the FDA and other U.S. and foreign regulatory agencies have substantial authority to require additional testing and reporting, perform inspections, change product labeling or mandate withdrawals of our products. Failure to comply with applicable regulatory requirements may subject us to administrative and/or judicially imposed sanctions or monetary penalties as well as reputational and other harms. The sanctions could include the FDA's or foreign regulatory authorities' refusals to approve pending applications, delays in obtaining or withdrawals of approvals, delays or suspensions of clinical trials, warning letters, product recalls or seizures, total or partial suspensions of our operations, injunctions, fines, civil penalties and/or criminal prosecutions.

Obtaining and maintaining regulatory approvals have been, and will continue to be, increasingly difficult, time-consuming and costly. Legislative bodies or regulatory agencies could enact new laws or regulations, change existing laws or regulations, or change their interpretations of laws or regulations at any time, which could affect our ability to obtain or maintain approval of our products or product candidates. The rate and degree of change in existing laws and regulations and regulatory expectations have accelerated in established markets, and regulatory expectations continue to evolve in emerging markets. We are unable to predict whether and when any further changes to laws or regulatory policies affecting our business could occur, such as changes to laws or regulations governing manufacturer communications concerning drug products and drug product candidates and whether such changes could have a material adverse effect on our product sales, business and results of operations. In the United States, a partial federal government shutdown halted the work of many federal agencies and their employees from late December 2018 through late January 2019. A subsequent extended shutdown could result in reductions or delays of FDA's activities, including with respect to our ongoing clinical programs, our manufacturing of our products and product candidates and our product approvals.

Regulatory authorities have questioned, and may in the future question, the sufficiency for approval of the endpoints we select for our clinical trials. A number of our products and product candidates have been evaluated in clinical trials using surrogate endpoints that measure an effect that is known to correlate with an ultimate clinical benefit. For example, a therapeutic oncology product candidate may be evaluated for its ability to reduce or eliminate minimal residual disease (MRD), or to extend the length of time during and after the treatment that a patient lives without the disease worsening, measured by PFS. Demonstrating that the product candidate induces MRD-negative responses or produces a statistically significant improvement in PFS does not necessarily mean that the product candidate will show a statistically significant improvement in overall survival or the time that the patients remain alive. In the cardiovascular setting, a heart disease therapeutic candidate may be evaluated for its ability to reduce low-density lipoprotein cholesterol (LDL-C) levels, as an elevated LDL-C level has been a surrogate endpoint for cardiovascular events such as death, heart attack and stroke. The use of surrogate endpoints such as PFS and LDL-C reduction, in the absence of other measures of clinical benefit, may not be sufficient for broad usage or approval even when such results are statistically significant. Regulatory authorities could also add new requirements, such as the completion of enrollment in a confirmatory study or the completion of an outcomes study or a meaningful portion of an outcomes study, as conditions for obtaining approval or obtaining an indication. For example, despite demonstrating that Repatha® reduced LDL-C levels in a broad patient population, only after our large phase 3 outcomes study evaluating the ability of Repatha® to prevent cardiovascular events met certain of its primary composite endpoint and key secondary composite endpoint did the FDA grant a broader approval of Repatha® to reduce the risk of certain cardiovascular events, and also to be used, alone or in combination with other lipid-lowering therapies, for the treatment of adults with primary hyperlipidemia to reduce LDL-C. There may also be situations in which demonstrating the efficacy and safety of a product candidate may not be sufficient to gain regulatory approval unless superiority to other existing treatment options can be shown. The imposition of additional requirements or our inability to meet them in a timely fashion or at all has delayed, and may in the future delay, our clinical development and regulatory filing efforts, delay or prevent us from obtaining regulatory approval for new product candidates or new indications for existing products, or prevent us from maintaining our current labels.

Some of our products have been approved by U.S. and foreign regulatory authorities on an accelerated or conditional basis with full approval conditioned upon fulfilling the requirements of regulators. For example, in March 2018, we announced that the FDA approved BLINCYTO® under accelerated approval for the treatment of adults and children with B-cell precursor acute lymphoblastic leukemia in first or second complete remission with MRD greater than or equal to 0.1 percent. Continued approval for this indication may be contingent upon verification and description of clinical benefit in confirmatory trials. Regulatory authorities are placing greater focus on monitoring products originally approved on an accelerated or conditional basis and on whether the sponsors of such products have met the conditions of the accelerated or conditional approvals. If we are unable to fulfill the regulators' requirements that were conditions of a product's accelerated or conditional approval and/or if regulators re-evaluate the data or risk-benefit profile of our product, the conditional approval may not result in full approval or may be revoked or not renewed. Alternatively, we may be required to change the product's labeled indications or even withdraw the product from the market.

Regulatory authorities can also impose post-marketing pediatric study requirements. Failure to fulfill such requirements may result in regulatory or enforcement action, including financial penalties or the invalidation of a product's marketing authorization.

Safety problems or signals can arise as our products and product candidates are evaluated in clinical trials, including investigator sponsored studies, or as our marketed products are used in clinical practice. We are required continuously to collect and assess adverse events reported to us and to communicate to regulatory agencies these adverse events and safety signals regarding our products. Regulatory agencies periodically perform inspections of our pharmacovigilance processes, including our adverse event reporting. In the United States, for our products with approved REMS (see Item 1. Business—Government Regulation—Postapproval Phase), we are required to submit periodic assessment reports to the FDA to demonstrate that the goals of the REMS are being met. REMS and other risk management programs are designed to ensure that a drug's benefits outweigh the risks and vary in the elements they contain. If the FDA is not satisfied with the results of the periodic assessment reports we submit for any of our REMS, the FDA may also modify our REMS or take other regulatory actions, such as implementing revised or restrictive labeling. The drug delivery devices approved for use in combination with our products are also subject to regulatory oversight and review for safety and malfunctions. If regulatory agencies determine that we or other parties (including our clinical trial investigators, those operating our patient support programs or licensees of our products) have not complied with the applicable reporting, other pharmacovigilance or other safety or quality assessment requirements, we may become subject to additional inspections, warning letters or other enforcement actions, including fines, marketing authorization withdrawal and other penalties. Our product candidates and marketed products can also be affected by safety problems or signals occurring with respect to products that are similar to ours or that implicate an entire class of products. Further, as a result of clinical trials, including sub-analyses or meta-analyses of earlier clinical trials (a meta-analysis involves the use of various statistical methods to combine results from previous separate but related studies) performed by us or others, concerns may arise about the sufficiency of the data or studies underlying a product's approved label. Such actual or perceived safety problems or concerns can lead to:

- revised or restrictive labeling for our products, or the potential for restrictive labeling that has resulted, and may in the future result, in our decision not to commercialize a product candidate;
- requirement of risk management or minimization activities or other regulatory agency compliance actions related to the promotion and sale of our products;
- post-marketing commitments, mandated post-marketing requirements or pharmacovigilance programs for our approved products;
- product recalls of our approved products;
- required changes to the processes used in the manufacture of our products, which could increase our manufacturing costs and affect the availability of contract manufacturers we may utilize to assist in such manufacturing;
- revocation of approval for our products from the market completely, or within particular therapeutic areas or patient types;
- increased timelines or delays in being approved by the FDA or other regulatory bodies; and/or
- treatments or product candidates not being approved by regulatory bodies.

For example, after an imbalance in positively adjudicated cardiovascular serious adverse events was observed in one of the phase 3 clinical trials for EVENITY® but not in another, larger phase 3 study, in April 2019 the FDA approved EVENITY® for the treatment of osteoporosis in postmenopausal women at high risk for fracture, along with a post-marketing requirement. The requirement includes a five-year observational feasibility study that could be followed by a comparative safety study or trial.

In addition to our innovative products, we are working to develop and commercialize biosimilar versions of a number of products currently manufactured, marketed and sold by other pharmaceutical companies. In some markets, there is not yet a legislative or regulatory pathway for the approval of biosimilars. In the United States, the ACA provided for such a pathway; while the FDA continues to implement it, discussions continue as to the evidence needed to demonstrate biosimilarity or interchangeability for specific products. See *We currently face competition from biosimilars and expect to face increasing competition from biosimilars and generics in the future.* Delays or uncertainties in the development or implementation of such pathways could result in delays or difficulties in getting our biosimilar products approved by regulatory authorities, subject us to unanticipated development costs or otherwise reduce the value of the investments we have made in the biosimilars area. Further, we cannot predict whether any repeal or reform of the ACA or other legislation or policy initiatives would affect the biosimilar pathway or have a material adverse effect on our development of biosimilars or on our marketed biosimilars. In addition, if we are unable to bring our biosimilar products to market on a timely basis and secure "first-to-market" or other advantageous positions, our future biosimilar sales, business and results of operations could be materially and adversely affected.

We may not be able to develop commercial products despite significant investments in R&D.

Amgen invests heavily in R&D. Successful product development in the biotechnology industry is highly uncertain, and very few R&D projects produce commercial products. Product candidates, including biosimilar product candidates, or new indications for existing products (collectively, product candidates) that appear promising in the early phases of development may fail to reach the market for a number of reasons, such as:

- the product candidate did not demonstrate acceptable clinical trial results even though it demonstrated positive preclinical trial results, for reasons that could include changes in the standard of care of medicine;
- the product candidate was not effective or not more effective than currently available therapies in treating a specified condition or illness;
- the product candidate was not cost effective in light of existing therapeutics;
- the product candidate had harmful side effects in animals or humans;
- the necessary regulatory bodies, such as the FDA or EMA, did not approve the product candidate for an intended use;
- the product candidate was not economical for us to manufacture and commercialize;
- other parties had or may have had proprietary rights relating to our product candidate, such as patent rights, and did not let us sell it on reasonable terms, or at all;
- we and certain of our licensees, partners, contracted organizations or independent investigators may have failed to effectively conduct clinical development or clinical manufacturing activities;

- the pathway to regulatory approval or reimbursement for product candidates was uncertain or not well-defined;
- the biosimilar product candidate failed to demonstrate the requisite biosimilarity to the applicable reference product, or was otherwise determined by a regulatory authority to not meet applicable standards for approval; and
- a companion diagnostic device that is required with the use of a product candidate is not approved by the necessary regulatory authority.

We have spent considerable time, energy and resources developing our expertise in human genetics and acquiring access to libraries of genetic information with the belief that genetics could meaningfully aid our search for new medicines and help guide our R&D decisions and investments. We have focused our R&D strategy on drug targets validated by genetic or other compelling human evidence. However, product candidates based on genetically validated targets remain subject to the uncertainties of the drug development process and may not reach the market for a number of reasons, including the factors listed above.

A number of our product candidates have failed or been discontinued at various stages in the product development process. For example, in May 2015, we terminated our participation in the co-development and commercialization of brodalumab, a product candidate in phase 3, with AstraZeneca. The decision was based on events of suicidal ideation and behavior in the brodalumab program that occurred late in the development program, which we believed likely would necessitate restrictive labeling that would limit the appropriate patient population. Inability to bring a product to market or a significant delay in the expected approval and related launch date of a new product for any of the reasons discussed could potentially have a negative effect on our product sales and earnings and could result in a significant impairment of in-process research and development (IPR&D) or other intangible assets.

We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications.

Before we sell any products, we must conduct clinical trials to demonstrate that our product candidates are safe and effective for use in humans. The results of those clinical trials are used as the basis to obtain approval from regulatory authorities such as the FDA and EMA. See *Our current products and products in development cannot be sold without regulatory approval*. We are required to conduct clinical trials using an appropriate number of trial sites and patients to support the product label claims. The length of time, number of trial sites and number of patients required for clinical trials vary substantially, and we may spend several years and incur substantial expense in completing certain clinical trials. In addition, we may have difficulty finding a sufficient number of clinical trial sites and patients to participate in our clinical trials, particularly if competitors are conducting clinical trials in similar patient populations. Patients may withdraw from clinical trials at any time, and privacy laws and/or other restrictions in certain countries may restrict the ability of clinical trial investigators to conduct further follow-up on such patients, which may adversely affect the interpretation of study results. Delays and complications in planned clinical trials can result in increased development costs, associated delays in regulatory approvals and in product candidates reaching the market and revisions to existing product labels.

Further, to increase the number of patients available for enrollment in our clinical trials, we have opened, and will continue to open, clinical sites and enroll patients in a number of locations where our experience conducting clinical trials is more limited, including Russia, India, China, South Korea, the Philippines, Singapore and some Central and South American countries, either through utilization of third-party contract clinical trial providers entirely or in combination with local staff. Conducting clinical trials in locations where we have limited experience requires substantial time and resources to understand the unique regulatory environments of individual countries. Further, we must ensure the timely production, distribution and delivery of the clinical supply of our product candidates to numerous and varied clinical trial sites. Additionally, regional disruptions, including natural disasters or health emergencies (such as novel viruses or pandemics), could significantly disrupt the timing of clinical trials. If we fail to adequately manage the design, execution and diverse regulatory aspects of our large and complex clinical trials or to manage the production or distribution of our clinical supply, or such sites experience disruptions as a result of a natural disaster or health emergency, corresponding regulatory approvals may be delayed or we may fail to gain approval for our product candidates or could lose our ability to market existing products in certain therapeutic areas or altogether. If we are unable to market and sell our products or product candidates or to obtain approvals in the timeframe needed to execute our product strategies, our business and results of operations could be materially and adversely affected.

We rely on independent third-party clinical investigators to recruit patients and conduct clinical trials on our behalf in accordance with applicable study protocols, laws and regulations. Further, we rely on unaffiliated third-party vendors to perform certain aspects of our clinical trial operations. In some circumstances, we enter into co-development arrangements with other pharmaceutical and medical devices companies that provide for the other company to conduct certain clinical trials for the product we are co-developing or to develop a diagnostic test used in screening or monitoring patients in our clinical trials. See *Some of our pharmaceutical pipeline and of our commercial product sales relies on collaborations with third parties, which may adversely affect the development and sale of our products.* We also may acquire companies that have past or ongoing clinical trials or rights

to products or product candidates for which clinical trials have been or are being conducted. These trials may not have been conducted to the same standards as ours; however, once an acquisition has been completed we assume responsibility for the conduct of these trials, including any potential risks and liabilities associated with the past and prospective conduct of those trials. If regulatory authorities determine that we or others, including our licensees or co-development partners, or the independent investigators or vendors selected by us, our co-development partners or by a company we have acquired or from which we have acquired rights to a product or product candidate, have not complied with regulations applicable to the clinical trials, those authorities may refuse or reject some or all of the clinical trial data or take other actions that could delay or otherwise negatively affect our ability to obtain or maintain marketing approval of the product or indication. In addition, delays or failures to develop diagnostic tests for our clinical trials can affect the timely enrollment of such trials and lead to delays or inability to obtain marketing approval. If we were unable to market and sell our products or product candidates, our business and results of operations could be materially and adversely affected.

In addition, some of our clinical trials utilize drugs manufactured and marketed by other pharmaceutical companies. These drugs may be administered in clinical trials in combination with one of our products or product candidates or in a head-to-head study comparing the products' or product candidates' relative efficacy and safety. In the event that any of these vendors or pharmaceutical companies have unforeseen issues that negatively affect the quality of their work product or create a shortage of supply, or if we are otherwise unable to obtain an adequate supply of these other drugs, our ability to complete our applicable clinical trials and/or evaluate clinical results may also be negatively affected. As a result, such quality or supply problems could adversely affect our ability to timely file for, gain or maintain regulatory approvals worldwide.

Clinical trials must generally be designed based on the current standard of medical care. However, in certain diseases, such as cancer, the standard of care is evolving rapidly. In some cases, we may design a clinical trial based on the standard of care we anticipate will exist at the time our study is completed. The duration of time needed to complete certain clinical trials may result in the design of such clinical trials being based on standards of medical care that are no longer or that have not become the current standards by the time such trials are completed, limiting the utility and application of such trials. Additionally, the views of regulatory agencies relating to the requirements for accelerated approval may change over time, and trial designs that were sufficient to support accelerated approvals for some oncology products may not be considered sufficient for later candidates. We may not obtain favorable clinical trial results and therefore may not be able to obtain regulatory approval for new product candidates or new indications for existing products and/or maintain our current product labels. Participants in clinical trials of our products and product candidates may also suffer adverse medical events or side effects that could, among other factors, delay or terminate clinical trial programs and/or require additional or longer trials to gain approval.

Even after a product is on the market, safety concerns may require additional or more extensive clinical trials as part of a risk management plan for our product or for approval of a new indication. For example, in connection with the June 2011 ESA label changes, we agreed to and conducted additional clinical trials examining the use of ESAs in CKD. Additional clinical trials we initiate, including those required by the FDA, could result in substantial additional expense and the outcomes could result in further label restrictions or the loss of regulatory approval for an approved indication, each of which could have a material adverse effect on our product sales, business and results of operations. Additionally, any negative results from such trials could materially affect the extent of approvals, the use, reimbursement and sales of our products, our business and results of operations.

Some of our products are used with drug delivery or companion diagnostic devices that have their own regulatory, manufacturing and other risks.

Many of our products and product candidates may be used in combination with a drug delivery device, such as an injector or other delivery system. For example, Neulasta® is available as part of the Neulasta® Onpro® kit, and our AutoTouch® reusable autoinjector is used with Enbrel Mini® single-dose prefilled cartridges. In addition, some of our products or product candidates, including many of our oncology products in early stage development, may also require the use of a companion or other diagnostic device such as a device that determines whether the patient is eligible to use our drug or that helps ensure its safe and effective use. In some regions, including the United States, regulatory authorities may require contemporaneous approval of the companion diagnostic device and the therapeutic product; in others the regulatory authorities may require a separate study of the companion diagnostic device. Our product candidates or expanded indications of our products used with such devices may not be approved or may be substantially delayed in receiving regulatory approval if development or approval of such devices is delayed, such devices do not also gain or maintain regulatory approval or clearance, or if such devices do not remain commercially available. When approval of the product and device is sought under a single marketing drug application, the increased complexity of the review process may delay receipt of regulatory approval. In addition, some of these devices may be provided by single-source unaffiliated third-party companies. We are dependent on the sustained cooperation and effort of those third-party companies to supply and/or market the devices and, in some cases, to conduct the studies required for approval or clearance by the applicable regulatory agencies. We are also dependent on those third-party companies continuing to meet applicable regulatory or other requirements. Failure to successfully develop, modify, or supply the devices, delays in or failures of the Amgen or third-party studies, or failure of us or the third-party companies to obtain or maintain regulatory approval or clearance of the devices could

result in increased development costs; delays in, or failure to obtain or maintain, regulatory approval; and/or associated delays in a product candidate reaching the market or in the addition of new indications for existing products. We are also required to collect and assess user complaints, adverse events and malfunctions regarding our devices, and actual or perceived safety problems or concerns with a device used with our product can lead to regulatory actions and adverse effects on our products. See *Our current products and products in development cannot be sold without regulatory approval.*Additionally, regulatory agencies conduct routine monitoring and conduct inspections to identify and evaluate potential issues with our devices. For example, in 2017, the FDA reported on its adverse event reporting system that it is evaluating our Neulasta® Onpro® kit. Loss of regulatory approval or clearance of a device that is used with our product may also result in the removal of our product from the market. Further, failure to successfully develop, supply, or gain or maintain approval for these devices could adversely affect sales of the related, approved products.

Some of our pharmaceutical pipeline and our commercial product sales relies on collaborations with third parties, which may adversely affect the development and sale of our products.

We depend on alliances with other companies, including pharmaceutical and biotechnology companies, vendors and service providers, for the development of a portion of the products in our pharmaceutical pipeline and for the commercialization and sales of certain of our commercial products. For example, we have collaborations with third parties under which we share development rights, obligations and costs and/or commercial rights and obligations. See Item 1. Business—Significant Developments—Collaboration with BeiGene, Ltd., and Item 1. Business—Business Relationships.

Failures by these parties to meet their contractual, regulatory, or other obligations to us or any disruption in the relationships between us and these third parties, could have a material adverse effect on our pharmaceutical pipeline and business. In addition, our collaborative relationships for R&D and/or commercialization and sales often extend for many years and have given, and may in the future give, rise to disputes regarding the relative rights, obligations and revenues of us and our collaboration partners, including the ownership or prosecution of intellectual property and associated rights and obligations. This could result in the loss of intellectual property rights or protection, delay the development and sale of potential pharmaceutical products, affect the effective sale and delivery of our commercialized products and lead to lengthy and expensive litigation, administrative proceedings or arbitration. For example, we are currently involved in litigation with Novartis over our collaboration agreements for the development and commercialization of Aimovig®. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. While our collaboration remains in place until the litigation is resolved and we remain committed to continuing to work with Novartis to sell and deliver Aimovig®, it is possible that the dispute may nevertheless affect the efficiency of operation and future growth of the collaboration. The litigation may also affect or delay, or lead to a termination of, other projects with Novartis.

The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability.

We are subject to income and other taxes in the United States and other jurisdictions in which we do business. As a result, our provision for income taxes is derived from a combination of applicable tax rates in the various places we operate. Significant judgment is required for determining our provision for income tax.

Our tax returns are routinely examined by tax authorities in the United States and other jurisdictions in which we do business, and a number of audits are currently underway. Tax authorities, including the Internal Revenue Service (IRS), are becoming more aggressive in their audits and are particularly focused on the allocations of income and expense among tax jurisdictions. As previously disclosed, we received a Revenue Agent Report (RAR) from the IRS for the years 2010, 2011 and 2012. The RAR proposes to make significant adjustments that relate primarily to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. In November 2017, we received a modified RAR that revised the IRS's calculation but continued to propose substantial adjustments. We disagree with the proposed adjustments and are pursuing resolution with the IRS administrative appeals office, which currently has jurisdiction over the matter. If we deem necessary, we will vigorously contest the proposed adjustments through the judicial process. Although final resolution of this complex matter is not likely within the next 12 months, such resolution could have a material negative effect on our consolidated financial statements. We believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes, the ultimate resolution of any tax matters may result in payments substantially greater or less than amounts accrued.

Our provision for income taxes and results of operations in the future could be adversely affected by changes to our operating structure, changes in the mix of income and expenses in countries with differing tax rates, changes in the valuation of deferred tax assets and liabilities and changes in applicable tax laws, regulations or administrative interpretations thereof. The Tax Cuts and Jobs Act (the 2017 Tax Act) is complex and further regulations and interpretations are still being issued. We could face audit challenges to our application of the new law that could have a negative effect on our provision for income taxes. A change to the U.S. tax system, such as a repeal or modification of the 2017 Tax Act, a change to the tax system in a jurisdiction where we have

significant operations, such as the U.S. territory of Puerto Rico, or changes in tax law in the United States or other jurisdictions where we do business, could have a material and adverse effect on our business and on the results of our operations.

We perform a substantial majority of our commercial manufacturing activities at our facility in the U.S. territory of Puerto Rico and a substantial majority of our clinical manufacturing activities at our facility in Thousand Oaks, California; significant disruptions or production failures at these facilities could significantly impair our ability to supply our products or continue our clinical trials.

The global supply of our products and product candidates for commercial sales and for use in our clinical trials is significantly dependent on the uninterrupted and efficient operation of our manufacturing facilities, in particular those in the U.S. territory of Puerto Rico and Thousand Oaks, California. See *Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales*

We currently perform a substantial majority of our clinical manufacturing that supports our product candidates at our facility in Thousand Oaks, California. A substantial disruption in our ability to operate our Thousand Oaks manufacturing facility could materially and adversely affect our ability to supply our product candidates for use in our clinical trials, leading to delays in development of our product candidates.

In addition, we currently perform a substantial majority of our commercial manufacturing activities at our facility in the U.S. territory of Puerto Rico. In recent years, Puerto Rico has been affected by natural disasters, including earthquakes in early 2020 and Hurricane Maria in 2017. These natural disasters have affected public and private properties and Puerto Rico's electric grid and communications networks. While the critical manufacturing areas of our commercial manufacturing facility were not significantly affected by these natural disasters, the restoration of electrical service on the island after Hurricane Maria was a slow process, and our facility operated with electrical power from backup diesel powered generators for some time. We are also operating on backup generators since the early 2020 earthquakes. Further instability of the electric grid could require us to increase the use of our generators or to continue using them exclusively. In addition, future storms or other natural disasters or events could cause a more significant effect on our manufacturing operations. Also, during the summer of 2019 political instability in the Puerto Rico government led to civil unrest and the resignation and replacement of the governor. Although our ability to manufacture and supply our products has not, to date, been affected by these natural disasters or the political instability, any substantial disruption to our ability to operate our Puerto Rico manufacturing facility or get supplies and manufactured products transported to and from that location could materially and adversely affect our ability to supply our products and affect our product sales. See *Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales*.

Hurricane Maria, the earthquakes of early 2020 and the political situation in Puerto Rico have placed greater stress on the island's already challenged economy. Beginning in 2016, the government of Puerto Rico defaulted on its roughly $72 billion in debt. In response, the U.S. Congress passed the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA), which established a Financial Oversight and Management Board (Oversight Board) to provide fiscal oversight. Title III of PROMESA provides Puerto Rico with a judicial process for restructuring its debt similar to, but not identical to, Chapter 9 of the U.S. Bankruptcy Code, including a stay of debtholder litigation. In May 2017, the Oversight Board approved and certified the filing in the U.S. District Court for the District of Puerto Rico of a voluntary petition under Title III of PROMESA for the government of Puerto Rico and certain of its governmental entities, including the Puerto Rico Electric Power Authority. Certain creditors and labor unions have brought suit claiming the appointment process of the Oversight Board was unconstitutional, and as of October 2019, the U.S. Supreme Court heard oral arguments on these claims. If the U.S. Supreme Court were to hold that PROMESA has a constitutional infirmity and that actions taken by the Oversight Board are invalid, the commencement of all Title III proceedings could be invalid and the current debt restructuring process and the debtholder litigation stay under Title III of PROMESA could be in jeopardy.

Each year since 2017, the Oversight Board has prepared and updated Puerto Rico's fiscal plan and has certified its budget, imposing significant expense reductions across the government, considering federal disaster funding related to Hurricane Maria and projecting material deficits once the stimulus effects of the disaster recovery dissipate. Each plan has stressed the need for fiscal and structural reforms to address Puerto Rico's challenging economic and demographic trends. The government of Puerto Rico challenged several budget measures imposed by the Oversight Board; these challenges have been dismissed by the Title III Court and affirmed by the U.S. Court of Appeals for the First Circuit.

In addition, the 2017 Tax Act no longer permits deferral of U.S. taxation on Puerto Rico earnings, although these earnings generally will be taxed in the United States at a reduced 10.5% rate. Given Puerto Rico's challenged economy and disaster recovery needs, it may be difficult for Puerto Rico to sustain or grow its manufacturing base, which contributes significantly to Puerto Rico's economy, due to competition from other locations subject to similar levels of taxation.

While PROMESA and the actions above continue to be important factors in moving Puerto Rico toward economic stability, Puerto Rico's ongoing economic and demographic trend challenges and political situation, the effects of natural disasters and the

effects of the 2017 Tax Act or other potential tax law changes have negatively affected, and may in the future negatively affect, the territorial government's provision of utilities or other services in Puerto Rico that we use in the operation of our business and could create the potential for increased taxes or fees to operate in Puerto Rico, result in a migration of workers from Puerto Rico to the mainland United States, or make it more expensive or difficult for us to operate in Puerto Rico. These factors could have a material adverse effect on our ability to supply our products, on our business and on our product sales.

We rely on third-party suppliers for certain of our raw materials, medical devices and components.

We rely on unaffiliated third-party suppliers for certain raw materials, medical devices and components necessary for the manufacturing of our commercial and clinical products. Certain of those raw materials, medical devices and components are proprietary products of those unaffiliated third-party suppliers and are specifically cited in our drug applications with regulatory agencies so that they must be obtained from that specific sole source or sources and could not be obtained from another supplier unless and until the regulatory agency approved such supplier. For example, Scandinavian Health Limited Group is our single source of SureClick® autoinjectors for Repatha®, ENBREL, Aimovig®, AMGEVITA™ and Aranesp®. Also, certain of the raw materials required in the commercial and clinical manufacturing of our products are sourced from other countries and/or derived from biological sources, including mammalian tissues, bovine serum and human serum albumin.

Among the reasons we may be unable to obtain these raw materials, medical devices and components include:

- regulatory requirements or action by regulatory agencies or others;
- adverse financial or other strategic developments at or affecting the supplier, including bankruptcy;
- unexpected demand for or shortage of raw materials, medical devices or components;
- failure to comply with our quality standards which results in quality and product failures, product contamination and/or recall;
- a material shortage, contamination, recall and/or restrictions on the use of certain biologically derived substances or other raw materials;
- discovery of previously unknown or undetected imperfections in raw materials, medical devices or components;
- cyber-attacks on supplier systems; and
- labor disputes or shortages, including from the effects of health emergencies (such as novel viruses or pandemics) and natural disasters.

For example, in prior years we have experienced shortages in certain components necessary for the formulation, fill and finish of certain of our products in our Puerto Rico facility. Further quality issues that result in unexpected additional demand for certain components may lead to shortages of required raw materials or components (such as we have experienced with EPOGEN® glass vials). We may experience similar or other shortages in the future resulting in delayed shipments, supply constraints, clinical trial delays, contract disputes and/or stock-outs of our products. These or other similar events could negatively affect our ability to satisfy demand for our products or conduct clinical trials, which could have a material adverse effect on our product sales, business and results of operations.

Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.

Manufacturing biologic and small molecule human therapeutic products is difficult, complex and highly regulated. We manufacture many of our commercial products and product candidates internally. In addition, we currently use third-party contract manufacturers to produce, or assist in the production of, a number of our products, and we currently use contract manufacturers to produce, or assist in the production of, a number of our late-stage product candidates and drug delivery devices. See Item 1. Business—Manufacturing, Distribution and Raw Materials—Manufacturing. Our ability to adequately and timely manufacture and supply our products (and product candidates to support our clinical trials) is dependent on the uninterrupted and efficient operation of our facilities and those of our third-party contract manufacturers, which may be affected by:

- capacity of manufacturing facilities;
- contamination by microorganisms or viruses, or foreign particles from the manufacturing process;
- natural or other disasters, including hurricanes, earthquakes, volcanoes or fires;
- labor disputes or shortages, including the effects of health emergencies (such as novel viruses or pandemics) or natural disasters;

- compliance with regulatory requirements;
- changes in forecasts of future demand;
- timing and actual number of production runs and production success rates and yields;
- updates of manufacturing specifications;
- contractual disputes with our suppliers and contract manufacturers;
- timing and outcome of product quality testing;
- power failures and/or other utility failures;
- cyber-attacks on supplier systems;
- breakdown, failure, substandard performance or improper installation or operation of equipment (including our information technology systems and network-connected control systems or those of our contract manufacturers or third-party service providers); and/or
- delays in the ability of the FDA or foreign regulatory agencies to provide us necessary reviews, inspections and approvals, including as a result of a subsequent extended U.S. federal government shutdown.

If any of these or other problems affect production in one or more of our facilities or those of our third-party contract manufacturers, or if we do not accurately forecast demand for our products or the amount of our product candidates required in clinical trials, we may be unable to start or increase production in our unaffected facilities to meet demand. If the efficient manufacture and supply of our products or product candidates is interrupted, we may experience delayed shipments, delays in our clinical trials, supply constraints, stock-outs, adverse event trends, contract disputes and/or recalls of our products. From time to time we have initiated recalls of certain lots of our products. For example, in July 2014 we initiated a voluntary recall of an Aranesp® lot distributed in the EU after particles were detected in a quality control sample following distribution of that lot, and in April 2018 we initiated a precautionary recall of two batches of Vectibix® distributed in Switzerland after potential crimping defects were discovered in the metal seals on some product vials. If we are at any time unable to provide an uninterrupted supply of our products to patients, we may lose patients and physicians may elect to prescribe competing therapeutics instead of our products, which could have a material adverse effect on our product sales, business and results of operations.

Our manufacturing processes, those of our third-party contract manufacturers and those of certain of our third-party service providers must undergo regulatory approval processes and are subject to continued review by the FDA and other regulatory authorities. It can take longer than five years to build, validate and license another manufacturing plant and it can take longer than three years to qualify and license a new contract manufacturer or service provider. If we elect or are required to make changes to our manufacturing processes because of new regulatory requirements, new interpretations of existing requirements or other reasons, this could increase our manufacturing costs and result in delayed shipments, delays in our clinical trials, supply constraints, stock-outs, adverse event trends or contract negotiations or disputes. Such manufacturing challenges may also occur if our existing contract manufacturers are unable or unwilling to timely implement such changes, or at all.

In addition, regulatory agencies conduct routine monitoring and conduct inspections of our manufacturing facilities and processes as well as those of our third-party contract manufacturers and service providers. If regulatory authorities determine that we or our third-party contract manufacturers or certain of our third-party service providers have violated regulations, they may mandate corrective actions and/or issue warning letters, or even restrict, suspend or revoke our prior approvals, prohibiting us from manufacturing our products or conducting clinical trials or selling our marketed products until we or the affected third-party contract manufacturers or third-party service providers comply, or indefinitely. See also *Our current products and products in development cannot be sold without regulatory approval.* Such issues may also delay the approval of product candidates we have submitted for regulatory review, even if such product candidates are not directly related to the products, devices or processes at issue with regulators. Because our third-party contract manufacturers and certain of our third-party service providers are subject to the FDA and foreign regulatory authorities, alternative qualified third-party contract manufacturers and third-party service providers may not be available on a timely basis or at all. See *A breakdown, cyberattack or information security breach could compromise the confidentiality, integrity and availability of our information technology systems and network-connected control systems and our data, interrupt the operation of our business and affect our reputation.* If we or our third-party contract manufacturers or third-party service providers cease or interrupt production or if our third-party contract manufacturers and third-party service providers fail to supply materials, products or services to us, we may experience delayed shipments, delays in our clinical trials, supply constraints, contract disputes, stock-outs and/or recalls of our products. Additionally, we distribute a substantial volume of our commercial products through our primary distribution centers in Louisville, Kentucky for the United States and in Breda, Netherlands for Europe and much of the rest of the world. We also conduct most of the labeling and packaging of our products distributed in Europe and much of the rest of the world in Breda. Our ability to timely supply products is dependent on

the uninterrupted and efficient operations of our distribution and logistics centers, our third-party logistics providers and our labeling and packaging facility in Breda. Further, we rely on commercial transportation, including air and sea freight, for the distribution of our products to our customers, which may be negatively affected by natural disasters or security threats.

Concentration of sales at certain of our wholesaler distributors and at one free-standing dialysis clinic business and consolidation of private payers may negatively affect our business.

Certain of our distributors, customers and payers have substantial purchasing leverage, due to the volume of our products they purchase or the number of patient lives for which they provide coverage. The substantial majority of our U.S. product sales is made to three pharmaceutical product wholesaler distributors: AmerisourceBergen Corporation, McKesson Corporation and Cardinal Health, Inc. These distributors, in turn, sell our products to their customers, which include physicians or their clinics, dialysis centers, hospitals and pharmacies. One of our products, EPOGEN®, is sold primarily to free-standing dialysis clinics. DaVita owns or manages a large number of the outpatient dialysis facilities located in the United States and accounts for approximately 80% of all EPOGEN® sales. Similarly, as discussed above, there has been significant consolidation in the health insurance industry, including that a small number of PBMs now oversee a substantial percentage of total covered lives in the United States. See *Our sales depend on coverage and reimbursement from third-party payers, and pricing and reimbursement pressures may affect our profitability*. The three largest PBMs in the United States are now part of major health insurance providers. The growing concentration of purchasing and negotiating power by these entities may put pressure on our pricing due to their ability to extract price discounts on our products, fees for other services or rebates, negatively affecting our bargaining position, sales and/or profit margins. In addition, decisions by these entities to purchase or cover less or none of our products in favor of competitive products could have a material adverse effect on our product sales, business and results of operations due to their purchasing volume. Further, if one of our significant wholesale distributors encounters financial or other difficulties and becomes unable or unwilling to pay us all amounts that such distributor owes us on a timely basis or at all, it could negatively affect our business and results of operations. In addition, if one of our significant wholesale distributors becomes insolvent or otherwise unable to continue its commercial relationship with us in its present form, it could significantly disrupt our business and adversely affect our product sales, our business and results of operations unless suitable alternatives are timely found or lost sales are absorbed by another distributor.

Our efforts to collaborate with or acquire other companies, products, or technology, and to integrate the operations of companies or to support the products or technology we have acquired, may not be successful, and may result in unanticipated costs, delays or failures to realize the benefits of the transactions.

We seek innovation through significant investment in both internal R&D and external transactions including collaborations, partnering, alliances, licenses, joint ventures, mergers and acquisitions (collectively, acquisition activity). Acquisition activities may be subject to regulatory approvals or other requirements that are not within our control. There can be no assurance that such regulatory or other approvals will be obtained or that all closing conditions required in connection with our acquisition activities will be satisfied or waived, which could result in us being unable to complete the planned acquisition activities.

Acquisition activities are complex, time consuming and expensive and may result in unanticipated costs, delays or other operational or financial problems related to integrating the acquired company and business with our company, which may divert our management's attention from other business issues and opportunities and restrict the full realization of the anticipated benefits of such transactions within the expected timeframe or at all. We may pay substantial amounts of cash, incur debt or issue equity securities to pay for acquisition activities, which could adversely affect our liquidity or result in dilution to our stockholders, respectively. Further, failures or difficulties in integrating or retaining new personnel or in integrating the operations of the businesses, products or assets we acquire (including related technology, commercial operations, compliance programs, manufacturing, distribution and general business operations and procedures) may affect our ability to realize the benefits of the transaction and grow our business and may result in us incurring asset impairment or restructuring charges. These and other challenges may arise in connection with our recent acquisition of Otezla® and/or collaboration with BeiGene, or with other acquisition activities, which could have a material adverse effect on our business, results of operations and stock price.

Our sales and operations are subject to the risks of doing business internationally, including in emerging markets.

As we continue our expansion efforts in emerging markets around the world, through acquisitions and licensing transactions as well as through the development and introduction of our products in new markets, we face numerous risks to our business. There is no guarantee that our efforts and strategies to expand sales in emerging markets will succeed. Emerging market countries, including China, may be especially vulnerable to periods of global and local political, legal, regulatory and financial instability, including sovereign debt issues and/or the imposition of international sanctions in response to certain state actions. We may also be required to increase our reliance on third-party agents and unfamiliar operations and arrangements previously utilized by companies we partner with or acquire in emerging markets. See *We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications*. As we expand internationally, we are subject to fluctuations in foreign currency exchange rates relative to the U.S. dollar. While we have a program in place that is designed to

reduce our exposure to foreign currency exchange rate fluctuations through foreign currency hedging arrangements, our hedging efforts do not completely offset the effect of these fluctuations on our revenues and earnings. In addition, we have a number of financial instruments referencing the London Interbank Offered Rate (LIBOR). On July 27, 2017, the U.K Financial Conduct Authority, which regulates LIBOR, announced that it will no longer require banks to submit rates for the calculation of LIBOR to the LIBOR administrator after 2021, and it is anticipated that LIBOR will be phased out and replaced by 2022. While various replacement reference rates have been proposed, an alternative reference rate to LIBOR has not yet been widely adopted and the specific mechanisms to replace LIBOR in our existing LIBOR-linked financial instruments have not been finalized. As such, the replacement of LIBOR could have an adverse effect on the market for, or value of, our LIBOR-linked financial instruments.

Our international operations and business may also be subject to less protective intellectual property or other applicable laws, diverse data privacy and protection requirements, changing tax laws and tariffs, trade restrictions or other barriers designed to protect industry in the home country against foreign competition, far-reaching anti-bribery and anti-corruption laws and regulations and/or evolving legal and regulatory environments. Our expansion efforts in emerging markets around the world, including China, is dependent upon the establishment of an environment that is supportive of biopharmaceutical innovation, sustained access for our products and limited pricing controls. We are also subject to the economic and political uncertainties stemming from the United Kingdom's exit from the EU, commonly referred to as "Brexit," which occurred on January 31, 2020. While our manufacturing and packaging activities take place largely outside the United Kingdom, minimizing the need to make costly and significant changes to those operations, we have nevertheless been working to put in place contingency plans to attempt to mitigate the effects of Brexit on us. Overall, the legal and operational challenges of our international business operations, along with government controls, the challenges of attracting and retaining qualified personnel and obtaining and/or maintaining necessary regulatory or pricing approvals of our products, may result in a material adverse effect on our international product sales, business and results of operations.

Our business may be affected by litigation and government investigations.

We and certain of our subsidiaries are involved in legal proceedings. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. Civil and criminal litigation is inherently unpredictable, and the outcome can result in costly verdicts, fines and penalties, exclusion from federal healthcare programs and/or injunctive relief that affect how we operate our business. Defense of litigation claims can be expensive, time consuming and distracting, and it is possible that we could incur judgments or enter into settlements of claims for monetary damages or change the way we operate our business, which could have a material adverse effect on our product sales, business and results of operations. In addition, product liability is a major risk in testing and marketing biotechnology and pharmaceutical products. We may face substantial product liability exposure in human clinical trials and for products we sell after regulatory approval. Product liability claims, regardless of their merits, could be costly and divert management's attention and could adversely affect our reputation and the demand for our products. We and certain of our subsidiaries have previously been named as defendants in product liability actions for certain of our products.

We are also involved in government investigations that arise in the ordinary course of our business. In recent years, there has been a trend of increasing government investigations and litigations against companies operating in our industry, both in the United States and around the world. See *Our sales depend on coverage and reimbursement from third-party payers, and pricing and reimbursement pressures may affect our profitability.* Our business activities outside of the United States are subject to the FCPA and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate, including the UK Bribery Act. We cannot ensure that all our employees, agents, contractors, vendors, licensees, partners or collaborators will comply with all applicable laws and regulations. On April 25, 2019, we entered into a settlement agreement with the DOJ and the OIG of the HHS to settle certain allegations relating to our support of independent charitable organizations that provide patients with financial assistance to access their medicines. As a result, we entered into a corporate integrity agreement that requires us to maintain a corporate compliance program and to undertake a set of defined corporate integrity obligations for a period of five years. While we expect to fully comply with all of our obligations under the corporate integrity agreement, failure to do so could result in substantial penalties and our being excluded from government healthcare programs. We may also see new government investigations of or actions against us citing novel theories of recovery. For example, prosecutors are placing greater scrutiny on commercial co-pay support programs, and further enforcement actions and investigations regarding such programs could limit our ability to provide co-pay assistance to commercial patients. Any of these results could have a material adverse effect on our business and results of operations.

A breakdown, cyberattack or information security breach could compromise the confidentiality, integrity and availability of our information technology systems and network-connected control systems and our data, interrupt the operation of our business and affect our reputation.

To achieve our business objectives, we rely to a large extent upon sophisticated information technology systems, including cloud services and network-connected control systems, some of which are managed, hosted, provided or serviced by third parties. Internal or external events that compromise the confidentiality, integrity and availability of our systems and data may significantly interrupt the operation of our business, result in significant costs and/or affect our reputation.

Our information technology systems are highly integrated into our business, including our R&D efforts, our clinical and commercial manufacturing processes and our product sales and distribution processes. The complexity and interconnected nature of our systems makes them potentially vulnerable to breakdown or other service interruptions. Our systems are also subject to frequent cyberattacks. As the cyber-threat landscape evolves, these attacks are growing in frequency, sophistication and intensity and are becoming increasingly difficult to detect. Such attacks could include the use of harmful and virulent malware, including ransomware or other denials of service, and can be deployed through various means including the software supply chain, e-mail, malicious websites and the use of social engineering. Attacks such as those seen with other multi-national companies, including some of our peers, could leave us unable to utilize key business systems or access important data needed to operate our business, including developing, gaining regulatory approval for, manufacturing, selling and/or distributing our products. For example, in 2017, a pharmaceutical company experienced a cyberattack involving virulent malware that significantly disrupted its operations, including its research and sales operations and the production of some of its medicines and vaccines. As a result of the cyberattack, its orders and sales for certain products in certain markets were negatively affected. Our systems also contain and utilize a high volume of sensitive data, including intellectual property, trade secrets, financial information, regulatory information, strategic plans, sales trends and forecasts, litigation materials and/or personal information belonging to us, our staff, our patients, customers and/or other parties. In some cases, we utilize third-party service providers to process, store, manage or transmit such data, which may increase our risk. Intentional or inadvertent data privacy or security breaches (including cyberattacks) or lapses by employees, service providers (including providers of information technology-specific services), nation states, organized crime organizations, “hacktivists” or others, create risks that our sensitive data may be exposed to unauthorized persons, our competitors, or the public. Finally, domestic and global government regulators, our business partners, suppliers with whom we do business, companies that provide us or our partners with business services and companies we may acquire may face similar risks, and security breaches of their systems could adversely affect our security, leave us without access to important systems, products, raw materials, components, services or information or expose our confidential data. For example, in 2019, two vendors that perform testing and analytical services that we use in developing and manufacturing our products have experienced cyberattacks requiring us to disconnect our systems from the vendors’ systems. While we were able to reconnect our systems following restoration of the vendor’s capabilities without significantly affecting product availability, a more extended service outage affecting this or other vendors, particularly where such vendor is the single source from which we obtain the services, could have a material adverse effect on our business or results of operations. In addition, we distribute our products in the United States primarily through three pharmaceutical wholesalers, and a security breach that impairs the distribution operations of our wholesalers could significantly impair our ability to deliver our products to healthcare providers.

Although we have experienced system breakdowns, attacks and information security breaches, we do not believe such breakdowns, attacks and breaches have had a material adverse effect on our business or results of operations. We continue to invest in the monitoring, protection and resilience of our critical or sensitive data and systems. However, there can be no assurance that our efforts will detect, prevent or fully recover systems or data from all breakdowns, service interruptions, attacks, or breaches of our systems that could adversely affect our business and operations and/or result in the loss or exposure of critical, proprietary, private, confidential or otherwise sensitive data, which could result in financial, legal, business or reputational harm to us or negatively affect our stock price. While we maintain cyber-liability insurance, our insurance is not sufficient to cover us against all losses that could potentially result from a service interruption, breach of our systems or loss of our critical or sensitive data.

We are also subject to various laws and regulations globally regarding privacy and data protection, including laws and regulations relating to the collection, storage, handling, use, disclosure, transfer and security of personal data. The legislative and regulatory environment regarding privacy and data protection is continuously evolving and developing and the subject of significant attention globally. For example, we are subject to the EU’s GDPR, which became effective in May 2018, and the California Consumer Privacy Act of 2018, which became effective in January 2020, each of which contemplate substantial penalties (penalties for noncompliance could be 4% of an organization’s annual global revenues under the GDPR. Other jurisdictions where we operate have enacted or proposed similar legislation and/or regulations. Failure to comply with these current and future laws could result in significant penalties and could have a material adverse effect on our business and results of operations.

Global economic conditions may negatively affect us and may magnify certain risks that affect our business.

Our operations and performance have been, and may continue to be, affected by global economic conditions. Financial pressures may cause government or other third-party payers to more aggressively seek cost containment measures. See *Our sales depend on coverage and reimbursement from third-party payers, and pricing and reimbursement pressures may affect our profitability*. As a result of global economic conditions, some third-party payers may delay or be unable to satisfy their reimbursement obligations. Job losses or other economic hardships may also affect patients' ability to afford health care as a result of increased co-pay or deductible obligations, greater cost sensitivity to existing co-pay or deductible obligations, lost healthcare insurance coverage or for other reasons. We believe such conditions have led and could continue to lead to reduced demand for our products, which could have a material adverse effect on our product sales, business and results of operations. Economic conditions may also adversely affect the ability of our distributors, customers and suppliers to obtain the liquidity required to buy inventory or raw materials and to perform their obligations under agreements with us, which could disrupt our operations. Although we monitor our distributors', customers' and suppliers' financial condition and their liquidity to mitigate our business risks, some of our distributors, customers and suppliers may become insolvent, which could have a material adverse effect on our product sales, business and results of operations. A significant worsening of global economic conditions could materially increase these risks facing us.

We maintain a significant portfolio of investments disclosed as cash equivalents and marketable securities on our consolidated balance sheets. The value of our investments may be adversely affected by interest rate fluctuations, downgrades in credit ratings, illiquidity in the capital markets and other factors that may result in other-than-temporary declines in the value of our investments. Any of those events could cause us to record impairment charges with respect to our investment portfolio or to realize losses on sales of investments.

Our stock price is volatile.

Our stock price, like that of our peers in the biotechnology and pharmaceutical industries, is volatile. Our revenues and operating results may fluctuate from period to period for a number of reasons. Events such as a delay in product development, changes to our expectations or strategy or even a relatively small revenue shortfall may cause financial results for a period to be below our expectations or projections. As a result, our revenues and operating results and, in turn, our stock price may be subject to significant fluctuations. Announcements or discussions, including via social media channels, of possible restrictive actions by government or private payers that would negatively affect our business or industry if ultimately enacted or adopted may also cause our stock price to fluctuate, whether or not such restrictive actions ever actually occur. Similarly, actual or perceived safety issues with our products or similar products or unexpected clinical trial results can have an immediate and rapid effect on our stock price, whether or not our operating results are materially affected.

We may not be able to access the capital and credit markets on terms that are favorable to us, or at all.

The capital and credit markets may experience extreme volatility and disruption, which may lead to uncertainty and liquidity issues for both borrowers and investors. We expect to access the capital markets to supplement our existing funds and cash generated from operations in satisfying our needs for working capital; capital expenditure and debt service requirements; our plans to pay dividends and repurchase stock; and other business initiatives we strategically plan to pursue, including acquisitions and licensing activities. In the event of adverse capital and credit market conditions, we may be unable to obtain capital market financing on similar favorable terms, or at all, which could have a material adverse effect on our business and results of operations. Changes in credit ratings issued by nationally recognized credit-rating agencies could adversely affect our ability to obtain capital market financing and the cost of such financing and have an adverse effect on the market price of our securities.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

As of December 31, 2019, we owned or leased approximately 190 properties. The locations and primary functions of significant properties are summarized in the following tables:

U.S. Location:	Manufacturing	Administrative	Research and/or development	Sales and marketing	Warehouse	Distribution center
Thousand Oaks, CA*	✓	✓	✓	✓	✓	✓
San Francisco, CA			✓			
Louisville, KY					✓	✓
Cambridge, MA			✓			
Woburn, MA	✓				✓	
Juncos, Puerto Rico	✓	✓			✓	✓
West Greenwich, RI	✓	✓			✓	
Tampa, FL		✓				
Other U.S. cities		✓		✓		

Ex-U.S. Location:	Manufacturing	Administrative	Research and/or development	Sales and marketing	Warehouse	Distribution center
Brazil	✓	✓		✓	✓	✓
Canada		✓	✓	✓		
China		✓	✓	✓		
Germany		✓	✓	✓		
Iceland		✓	✓			
Ireland	✓	✓		✓	✓	
Japan		✓	✓	✓		
Netherlands	✓	✓		✓	✓	✓
Singapore	✓	✓			✓	
Switzerland		✓		✓		
Turkey	✓	✓		✓	✓	✓
United Kingdom		✓	✓	✓		
Other countries		✓	✓	✓	✓	

* Corporate headquarters

Excluded from the information above are (i) undeveloped land and leased properties that have been abandoned and (ii) certain buildings that we still own but are no longer used in our business. There are no material encumbrances on our owned properties.

We believe that our facilities are suitable for their intended uses and, in conjunction with our third-party contracting manufacturing agreements, provide adequate capacity and are sufficient to meet our expected needs. See Item 1A. Risk Factors for a discussion of the factors that could adversely impact our manufacturing operations and the global supply of our products.

See Item 1. Business—Manufacturing, Distribution and Raw Materials.

Item 3. LEGAL PROCEEDINGS

Certain of the legal proceedings in which we are involved are discussed in Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements, and are hereby incorporated by reference.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

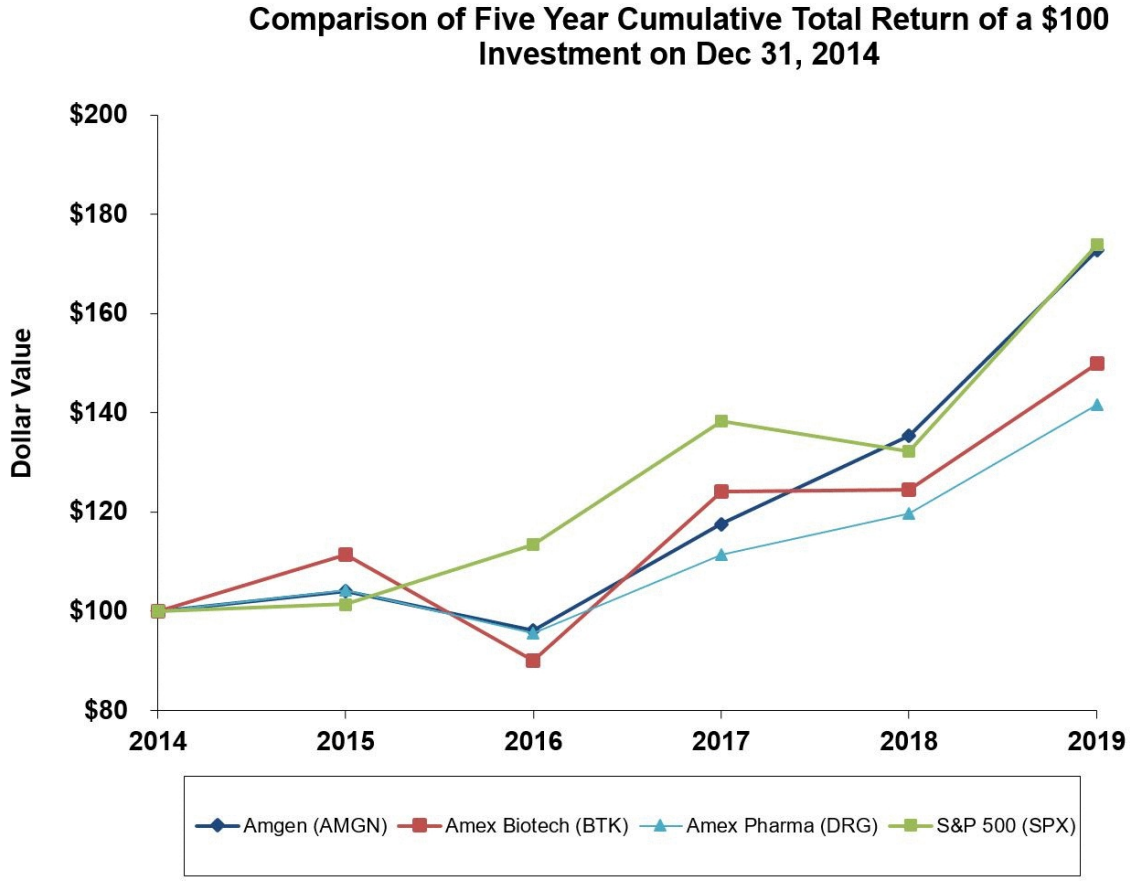
Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Common stock

Our common stock trades on the NASDAQ Global Select Market under the symbol AMGN. As ofFebruary 6, 2020, there were approximately 5,493 holders of record of our common stock.

Performance graph

The following graph shows the value of an investment of $100 on December 31, 2014, in each of Amgen common stock, the Amex Biotech Index, the Amex Pharmaceutical Index and Standard & Poor's 500 Index (S&P 500). All values assume reinvestment of the pretax value of dividends and are calculated as of December 31 of each year. The historical stock price performance of the Company's common stock shown in the performance graph is not necessarily indicative of future stock price performance.



	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Amgen (AMGN)	$100.00	$103.97	$96.12	$117.57	$135.31	$172.68
Amex Biotech (BTK)	$100.00	$111.39	$90.06	$124.11	$124.44	$149.87
Amex Pharmaceutical (DRG)	$100.00	$104.18	$95.49	$111.37	$119.66	$141.66
S&P 500 (SPX)	$100.00	$101.37	$113.49	$138.33	$132.29	$173.93

The material in this performance graph is not soliciting material, is not deemed filed with the SEC and is not incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made on, before or after the date of this filing and irrespective of any general incorporation language in such filing.

Stock repurchase program

During the three months and year ended December 31, 2019, we had one outstanding stock repurchase program, under which the repurchasing activity was as follows:

	Total number of shares purchased	Average price paid per share[1]	Total number of shares purchased as part of publicly announced program	Maximum dollar value that may yet be purchased under the program[2]
October 1 - October 31	2,500,729	$ 199.94	2,500,729	$ 3,064,464,667
November 1 - November 30	1,349,900	$ 222.55	1,349,900	$ 2,764,044,387
December 1 - December 31	1,218,800	$ 237.95	1,218,800	$ 6,474,033,251
	5,069,429	$ 215.10	5,069,429	
January 1 - December 31	40,244,414	$ 189.85	40,244,414	

(1) Average price paid per share includes related expenses.

(2) In May 2019 and December 2019, our Board of Directors increased the amount authorized under our stock repurchase program by an additional $5.0 billion and $4.0 billion, respectively.

Dividends

For the years ended December 31, 2019 and 2018, we paid quarterly dividends. We expect to continue to pay quarterly dividends, although the amount and timing of any future dividends are subject to approval by our Board of Directors. Additional information required by this item is incorporated herein by reference to Part IV—Note 16, Stockholders' equity, to the Consolidated Financial Statements.

Securities Authorized for Issuance Under Existing Equity Compensation Plans

Information about securities authorized for issuance under existing equity compensation plans is incorporated by reference from Item 12—Securities Authorized for Issuance Under Existing Equity Compensation Plans.

Item 6. SELECTED FINANCIAL DATA

Consolidated Statements of Income Data:	Years ended December 31,				
	2019	2018	2017	2016	2015
	(In millions, except per-share data)				
Revenues:					
Product sales	$ 22,204	$ 22,533	$ 21,795	$ 21,892	$ 20,944
Other revenues	1,158	1,214	1,054	1,099	718
Total revenues	$ 23,362	$ 23,747	$ 22,849	$ 22,991	$ 21,662
Operating expenses:					
Cost of sales	$ 4,356	$ 4,101	$ 4,069	$ 4,162	$ 4,227
Research and development	$ 4,116	$ 3,737	$ 3,562	$ 3,840	$ 4,070
Selling, general and administrative	$ 5,150	$ 5,332	$ 4,870	$ 5,062	$ 4,846
Net income[1]	$ 7,842	$ 8,394	$ 1,979	$ 7,722	$ 6,939
Diluted earnings per share[1]	$ 12.88	$ 12.62	$ 2.69	$ 10.24	$ 9.06
Dividends paid per share	$ 5.80	$ 5.28	$ 4.60	$ 4.00	$ 3.16

Consolidated Balance Sheets Data:	As of December 31,				
	2019	2018	2017	2016	2015
	(In millions)				
Total assets	$ 59,707	$ 66,416	$ 79,954	$ 77,626	$ 71,449
Total debt[2]	$ 29,903	$ 33,929	$ 35,342	$ 34,596	$ 31,429
Total stockholders' equity[3]	$ 9,673	$ 12,500	$ 25,241	$ 29,875	$ 28,083

In addition to the following notes, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Part IV—Consolidated Financial Statements and accompanying notes and previously filed Annual Reports on Form 10-K for further information regarding our consolidated results of operations and financial position for periods reported therein and for known factors that will affect the comparability of future results. Also see Part IV—Note 16, Stockholders' equity, to the Consolidated Financial Statements, for information regarding cash dividends declared per share of common stock for each of the four quarters of 2019, 2018 and 2017. In addition, our Board of Directors declared dividends per share of $1.00 and $0.79 that were paid in each of the four quarters of 2016 and 2015, respectively.

(1) In 2017, we recorded a net charge of $6.1 billion as a result of the 2017 Tax Act. See Part IV—Note 6, Income taxes, to the Consolidated Financial Statements.

(2) See Part IV—Note 15, Financing arrangements, to the Consolidated Financial Statements, for discussion of our financing arrangements. In 2016, we issued $7.3 billion of debt and repaid $3.7 billion of debt. In 2015, we issued $3.5 billion of debt and repaid $2.4 billion of debt.

(3) Throughout the five years ended December 31, 2019, we had a stock repurchase program authorized by the Board of Directors, through which we repurchased $7.6 billion, $17.9 billion, $3.1 billion, $3.0 billion and $1.9 billion, respectively, of Amgen common stock.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis (MD&A) is intended to assist the reader in understanding Amgen's business. MD&A is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and accompanying notes. Our results of operations discussed in MD&A are presented in conformity with U.S. generally accepted accounting principles (GAAP). Amgen operates in one business segment: human therapeutics. Therefore, our results of operations are discussed on a consolidated basis.

Forward-looking statements

This report and other documents we file with the SEC contain forward-looking statements that are based on current expectations, estimates, forecasts and projections about us, our future performance, our business, our beliefs and our management's assumptions. In addition, we, or others on our behalf, may make forward-looking statements in press releases, written statements or our communications and discussions with investors and analysts in the normal course of business through meetings, webcasts, phone calls and conference calls. Such words as "expect," "anticipate," "outlook," "could," "target," "project," "intend," "plan," "believe," "seek," "estimate," "should," "may," "assume" and "continue" as well as variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and they involve certain risks, uncertainties and assumptions that are difficult to predict. We describe our respective risks, uncertainties and assumptions that could affect the outcome or results of operations in Part I, Item 1A. Risk Factors. We have based our forward-looking statements on our management's beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied or forecasted by our forward-looking statements. Reference is made in particular to forward-looking statements regarding product sales, regulatory activities, clinical trial results, reimbursement, expenses, earnings per share (EPS), liquidity and capital resources, trends, planned dividends, stock repurchases and restructuring plans. Except as required under the federal securities laws and the rules and regulations of the SEC, we do not have any intention or obligation to update publicly any forward-looking statements after the distribution of this report, whether as a result of new information, future events, changes in assumptions or otherwise.

Overview

Amgen is a biotechnology company committed to unlocking the potential of biology for patients suffering from serious illnesses. A biotechnology pioneer since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential. In 2020, we celebrate our 40th anniversary, continuing our history of focusing on innovative medicines that have the potential to be first-in-class molecules and that have a large-effect size on serious diseases.

Our principal products—those with the most significant annual commercial sales—are ENBREL, Neulasta®, Prolia®, XGEVA®, Aranesp®, KYPROLIS®, EPOGEN® and our recently acquired product Otezla®. We also market a number of other products, including Nplate®, Vectibix®, Repatha®, Parsabiv®, Sensipar®/Mimpara®, BLINCYTO®, Aimovig®, NEUPOGEN®, KANJINTI™, AMGEVITA™, EVENITY®, MVASI™, IMLYGIC® and Corlanor®. For additional information about our products, see Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products.

Our strategy includes integrated activities intended to maintain and strengthen our competitive position in the industry. We focus on six commercial areas: inflammation, oncology/hematology, bone health, cardiovascular disease, nephrology and neuroscience and conduct discovery research primarily in three therapeutic areas: inflammation, oncology/hematology and cardiovascular/metabolic diseases. In 2019, we advanced our innovative pipeline, launched branded biosimilar programs, built our global geographic reach and expanded our next generation manufacturing capabilities, while returning capital to shareholders.

During the year we delivered strong financial results while facing competition from biosimilars and generics. Total product sales decreased 1% as lower net selling prices were offset partially by volume growth. Product sales decreased 5% in the United States and grew 11% in the rest of the world. Total operating expenses increased 2% as we invested in our innovative R&D pipeline, including our early oncology assets.

We continued to advance our pipeline, including AMG 510, which was granted fast track designation from the FDA for the treatment of patients with previously treated metastatic NSCLC with KRAS G12C mutation. We launched EVENITY® in the United States and Japan, and it was granted marketing authorization in Europe; and the United States label for KYPROLIS® was expanded. We also continued to advance our biosimilar program with the launches of KANJINTI™ and MVASI™ in the United States and the approval of AVSOLA™ for all approved indications of the reference product REMICADE® (infliximab) in the United States. Lastly, we made a regulatory submission for ABP 798 in the United States.

We have also continued to invest in external opportunities to augment our internal programs and products. We completed our acquisition of worldwide rights to Otezla®, the only oral, non-biologic treatment for psoriasis and psoriatic arthritis. We strengthened our international footprint with the announcement of a strategic collaboration with BeiGene to expand our oncology presence in China. In addition, we expanded our human genetics capabilities, by entering into a collaboration with a regional healthcare system in the United States and joining a consortium to perform whole genome sequencing of approximately 500,000 participants from the United Kingdom. Our human genetics capabilities allow us to identify new development targets in our chosen areas of therapeutic focus.

Cash flows from operating activities were $9.2 billion, enabling us to invest in our business while returning capital to shareholders through the payment of cash dividends and stock repurchases. For 2019, we increased our quarterly cash dividend by 10% to $1.45 per share of common stock. In December 2019, we declared a cash dividend of $1.60 per share of common stock for the first quarter of 2020, an increase of 10% for this period, to be paid in March 2020. We also repurchased 40.2 million shares of our common stock throughout 2019 at an aggregate cost of $7.6 billion.

Our long-term success depends, to a great extent, on our ability to continue to discover, develop and commercialize innovative products and acquire or collaborate on therapies currently in development by other companies. We must develop new products to achieve revenue growth and to offset revenue losses when products lose their exclusivity or when competing products are launched. Certain of our products face increasing pressure from competition, including biosimilars and generics. For additional information, including information on the expirations of patents for various products, see Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Patents, and Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. We devote considerable resources to R&D activities, but successful product development in the biotechnology industry is highly uncertain and we also are facing increasing regulatory scrutiny of safety and efficacy both before and after products launch.

Rising healthcare costs and economic conditions also continue to pose challenges to our business, including continued pressure by third-party payers, such as governments and private payers, to reduce healthcare expenditures. As a result of public and private healthcare-provider focus, the industry continues to experience significant pricing pressures and other cost containment measures. Finally, wholesale and end-user buying patterns can affect our product sales. These effects can cause fluctuations in quarterly product sales and have generally not been significant when comparing full-year product performance to the prior year.

See Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products and Part I, Item 1A. Risk Factors for further discussion of certain of the factors that could impact our future product sales.

Selected Financial Information

The following is an overview of our results of operations (in millions, except percentages and per-share data):

	Year ended December 31, 2019	Change	Year ended December 31, 2018
Product sales:			
U.S.	$ 16,531	(5)%	$ 17,429
Rest of world (ROW)	5,673	11 %	5,104
Total product sales	22,204	(1)%	22,533
Other revenues	1,158	(5)%	1,214
Total revenues	$ 23,362	(2)%	$ 23,747
Operating expenses	$ 13,688	2 %	$ 13,484
Operating income	$ 9,674	(6)%	$ 10,263
Net income	$ 7,842	(7)%	$ 8,394
Diluted EPS	$ 12.88	2 %	$ 12.62
Diluted shares	609	(8)%	665

In the following discussion of changes in product sales, any reference to unit demand growth or decline refers to changes in the purchases of our products by healthcare providers such as physicians or their clinics, dialysis centers, hospitals and pharmacies. In addition, any reference to increases or decreases in inventory refers to changes in inventory held at wholesaler customers and end users such as pharmacies.

Total product sales decreased for 2019, driven primarily by a decline in net selling price, offset partially by higher unit demand. For 2020, we expect net selling price to continue to decline.

Other revenues decreased for 2019, driven primarily by lower milestone payments, offset partially by higher royalties.

Operating expenses increased for 2019, driven primarily by higher spending in research and early pipeline in support of our oncology programs, offset partially by an impairment charge associated with an IPR&D asset in 2018.

Although changes in foreign currency exchange rates result in increases or decreases in our reported international product sales, the benefit or detriment that such movements have on our international product sales is offset partially by corresponding increases or decreases in our international operating expenses and our related foreign currency hedging activities. Our hedging activities seek to offset the impacts, both positive and negative, that foreign currency exchange rate changes may have on our net income by hedging our net foreign currency exposure, primarily with respect to product sales denominated in euros. The net impact from changes in foreign currency exchange rates was not material in 2019, 2018 or 2017.

Results of Operations

Product sales

Worldwide product sales were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
ENBREL	$ 5,226	4 %	$ 5,014	(8)%	$ 5,433
Neulasta®	3,221	(28)%	4,475	(1)%	4,534
Prolia®	2,672	17 %	2,291	16 %	1,968
XGEVA®	1,935	8 %	1,786	13 %	1,575
Aranesp®	1,729	(8)%	1,877	(9)%	2,053
KYPROLIS®	1,044	8 %	968	16 %	835
EPOGEN®	867	(14)%	1,010	(8)%	1,096
Sensipar®/Mimpara®	551	(69)%	1,774	3 %	1,718
Other products	4,959	49 %	3,338	29 %	2,583
Total product sales	$ 22,204	(1)%	$ 22,533	3 %	$ 21,795
Total U.S.	$ 16,531	(5)%	$ 17,429	2 %	$ 17,131
Total ROW	5,673	11 %	5,104	9 %	4,664
Total product sales	$ 22,204	(1)%	$ 22,533	3 %	$ 21,795

Future sales of our products will depend in part on the factors discussed in the Overview, Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition, in Part I, Item 1A. Risk Factors, and any additional factors discussed in the individual product sections below. In addition, for a list of our products' significant competitors, see Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition.

ENBREL

Total ENBREL sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
ENBREL — U.S.	$ 5,050	5 %	$ 4,807	(8)%	$ 5,206
ENBREL — Canada	176	(15)%	207	(9)%	227
Total ENBREL	$ 5,226	4 %	$ 5,014	(8)%	$ 5,433

The increase in ENBREL sales for 2019 was driven primarily by favorable impacts from changes in accounting estimates of sales deductions and an increase in net selling price, offset partially by lower unit demand. For 2020, we expect the trend of lower unit demand to continue.

The decrease in ENBREL sales for 2018 was driven primarily by lower unit demand and net selling price.

In April 2019, the FDA approved a second biosimilar version of ENBREL, and we are involved in patent litigations with the two companies seeking to market their FDA-approved biosimilar versions of ENBREL. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. Other companies are also developing proposed biosimilar versions of ENBREL. Companies with approved biosimilar versions of ENBREL may seek to enter the U.S. market if we are not successful in our litigations, or even earlier.

Neulasta®

Total Neulasta® sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
Neulasta® — U.S.	$ 2,814	(27)%	$ 3,866	(2)%	$ 3,931
Neulasta® — ROW	407	(33)%	609	1 %	603
Total Neulasta®	$ 3,221	(28)%	$ 4,475	(1)%	$ 4,534

The decrease in global Neulasta® sales for 2019 was driven by the impact of biosimilar competition on net selling price and unit demand. Neulasta® sales for 2019 included a $98 million order in the first quarter from the U.S. government.

The decrease in global Neulasta® sales for 2018 was driven primarily by favorable changes in accounting estimates of product returns in 2017, offset partially by favorable changes in inventory. Neulasta® sales for 2018 included a $55 million order in the fourth quarter from the U.S. government.

Biosimilar versions of Neulasta® have been approved and launched, and other biosimilar versions may also receive approval in the near future. Therefore, we face increased competition in the United States and Europe, which has had and will continue to have a material adverse impact on sales of Neulasta®. For a discussion of ongoing patent litigations related to these and other biosimilars, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Prolia®

Total Prolia® sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
Prolia® — U.S.	$ 1,772	18%	$ 1,500	18%	$ 1,272
Prolia® — ROW	900	14%	791	14%	696
Total Prolia®	$ 2,672	17%	$ 2,291	16%	$ 1,968

The increases in global Prolia® sales for 2019 and 2018 were driven by higher unit demand. Prolia®, which has a six-month dosing interval, has exhibited a historical sales pattern, with the first and third quarters of a year representing lower sales than the second and fourth quarters of a year.

XGEVA®

Total XGEVA® sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
XGEVA® — U.S.	$ 1,457	9%	$ 1,338	16%	$ 1,157
XGEVA® — ROW	478	7%	448	7%	418
Total XGEVA®	$ 1,935	8%	$ 1,786	13%	$ 1,575

The increases in global XGEVA® sales for 2019 and 2018 were driven primarily by higher unit demand.

Aranesp®

Total Aranesp® sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
Aranesp® — U.S.	$ 758	(20)%	$ 942	(15)%	$ 1,114
Aranesp® — ROW	971	4 %	935	— %	939
Total Aranesp®	$ 1,729	(8)%	$ 1,877	(9)%	$ 2,053

The decreases in global Aranesp® sales for 2019 and 2018 were driven primarily by the impact of competition on unit demand in the United States.

Aranesp® faces competition from a long-acting ESA. Aranesp® also faces competition from a biosimilar version of EPOGEN®. Other biosimilar versions of EPOGEN® may also receive approval in the future. In 2019, sales in the United States declined, and we expect them to continue to decline at a faster rate in 2020 due to short- and long-acting competition.

KYPROLIS®

Total KYPROLIS® sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
KYPROLIS® — U.S.	$ 654	12%	$ 583	4%	$ 562
KYPROLIS® — ROW	390	1%	385	41%	273
Total KYPROLIS®	$ 1,044	8%	$ 968	16%	$ 835

The increase in global KYPROLIS® sales for 2019 was driven primarily by higher unit demand.

The increase in global KYPROLIS® sales for 2018 was driven primarily by higher unit demand, offset partially by lower net selling price.

We are engaged in litigation with two related companies that are challenging our material patents related to KYPROLIS® and that are seeking to market generic carfilzomib products. Separately, we have entered into confidential settlement agreements with other companies developing generic carfilzomib products, and the court has entered consent judgments enjoining those companies from infringing certain of our patents, subject to terms of the confidential settlement agreements. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. The FDA has reported that it has tentatively approved Abbreviated New Drug Applications (ANDAs) filed by two companies for generic carfilzomib products. The date of final approval of those ANDAs is governed by the Hatch-Waxman Act and any applicable settlement agreements between the parties.

EPOGEN®

Total EPOGEN® sales were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
EPOGEN® — U.S.	$ 867	(14)%	$ 1,010	(8)%	$ 1,096

The decreases in EPOGEN® sales for 2019 and 2018 were driven primarily by a decline in net selling price due to our contract with DaVita. See Part I, Item I. Business—Business Relationships. In 2020, we expect a lower net selling price compared with 2019 due to our contract with DaVita.

A biosimilar version of EPOGEN® has been approved and launched, and other biosimilar versions may also receive approval in the future. Therefore, we face increased competition in the United States, which has had and will continue to have a material adverse impact on sales of EPOGEN®. For a discussion of ongoing patent litigation related to one of these biosimilars, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Sensipar®/Mimpara®

Total Sensipar®/Mimpara® sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
Sensipar® — U.S.	$ 252	(82)%	$ 1,436	5 %	$ 1,374
Sensipar®/Mimpara® — ROW	299	(12)%	338	(2)%	344
Total Sensipar®/Mimpara®	$ 551	(69)%	$ 1,774	3 %	$ 1,718

The decrease in global Sensipar®/Mimpara® sales for 2019 was driven by the impact of generic competitors on unit demand.

The increase in global Sensipar®/Mimpara® sales for 2018 was driven primarily by an increase in net selling price in the United States, offset partially by lower unit demand.

Our U.S. composition-of-matter patent related to Sensipar®, a small molecule, expired in March 2018. We are involved in litigation with a number of companies seeking to market generic cinacalcet products surrounding our U.S. formulation patent, which expires in September 2026. During the course of the patent litigation, we have entered into confidential settlement agreements with several of these companies. The court has entered consent judgments enjoining certain of those companies from infringing certain of our patents, subject to terms of the confidential settlement agreements. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. Companies manufacturing generics began selling their generic cinacalcet products in the United States in late 2018 and 2019. Sensipar® sales have been and, we believe, may continue to be adversely impacted as a result of generic-product sales in the U.S. market.

Other products

Other product sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
Nplate® — U.S.	$ 480	10 %	$ 438	12 %	$ 392
Nplate® — ROW	315	13 %	279	12 %	250
Vectibix® — U.S.	316	10 %	288	15 %	251
Vectibix® — ROW	428	6 %	403	3 %	391
Repatha® — U.S.	376	5 %	358	59 %	225
Repatha® — ROW	285	48 %	192	*	94
Parsabiv® — U.S.	550	82 %	302	*	—
Parsabiv® — ROW	80	*	34	*	5
BLINCYTO® — U.S.	176	31 %	134	18 %	114
BLINCYTO® — ROW	136	42 %	96	57 %	61
Aimovig® — U.S.	306	*	119	*	—
NEUPOGEN® — U.S.	178	(20)%	223	(40)%	369
NEUPOGEN® — ROW	86	(39)%	142	(21)%	180
KANJINTI™ — U.S.	118	*	—	— %	—
KANJINTI™ — ROW	108	*	44	*	—
AMGEVITA™ — ROW	215	*	11	*	—
EVENITY® — U.S.	42	*	—	— %	—
EVENITY® — ROW	147	*	—	— %	—
Otezla® — U.S.	139	*	—	— %	—
Otezla® — ROW	39	*	—	— %	—
MVASI™ — U.S.	121	*	—	— %	—
MVASI™ — ROW	6	*	—	— %	—
Other — U.S.	105	24 %	85	25 %	68
Other — ROW	207	9 %	190	4 %	183
Total other product sales	$ 4,959	49 %	$ 3,338	29 %	$ 2,583
Total U.S. — other products	$ 2,907	49 %	$ 1,947	37 %	$ 1,419
Total ROW — other products	2,052	48 %	1,391	20 %	1,164
Total other product sales	$ 4,959	49 %	$ 3,338	29 %	$ 2,583

* Change in excess of 100%.

Operating expenses

Operating expenses were as follows (dollar amounts in millions):

	Year ended December 31, 2019	Change	Year ended December 31, 2018	Change	Year ended December 31, 2017
Operating expenses:					
Cost of sales	$ 4,356	6 %	$ 4,101	1 %	$ 4,069
% of product sales	19.6%		18.2%		18.7%
% of total revenues	18.6%		17.3%		17.8%
Research and development	$ 4,116	10 %	$ 3,737	5 %	$ 3,562
% of product sales	18.5%		16.6%		16.3%
% of total revenues	17.6%		15.7%		15.6%
Selling, general and administrative	$ 5,150	(3)%	$ 5,332	9 %	$ 4,870
% of product sales	23.2%		23.7%		22.3%
% of total revenues	22.0%		22.5%		21.3%
Other	$ 66	(79)%	$ 314	(16)%	$ 375

Cost of sales

Cost of sales increased to 18.6% of total revenues for 2019, driven primarily by unfavorable product mix and amortization of intangible assets as a result of our acquisition of Otezla®, offset partially by lower royalties and lower manufacturing costs.

Cost of sales decreased to 17.3% of total revenues for 2018, driven primarily by lower royalty costs, expenses related to Hurricane Maria in 2017 and lower acquisition-related amortization of intangible assets, offset partially by higher manufacturing costs.

Research and development

The Company groups all of its R&D activities and related expenditures into three categories: (i) research and early pipeline, (ii) later-stage clinical programs and (iii) marketed products. These categories are described below:

Category	Description
Research and early pipeline	R&D expenses incurred in activities substantially in support of early research through the completion of phase 1 clinical trials, including drug discovery, toxicology, pharmacokinetics and drug metabolism, and process development
Later-stage clinical programs	R&D expenses incurred in or related to phase 2 and phase 3 clinical programs intended to result in registration of a new product or a new indication for an existing product primarily in the United States or the EU
Marketed products	R&D expenses incurred in support of the Company's marketed products that are authorized to be sold primarily in the United States or the EU. Includes clinical trials designed to gather information on product safety (certain of which may be required by regulatory authorities) and their product characteristics after regulatory approval has been obtained, as well as the costs of obtaining regulatory approval of a product in a new market after approval in either the United States or the EU has been obtained

R&D expense by category was as follows (in millions):

	Years ended December 31,		
	2019	2018	2017
Research and early pipeline	$ 1,649	$ 1,201	$ 972
Later-stage clinical programs	1,062	1,034	879
Marketed products	1,405	1,502	1,711
Total R&D expense	$ 4,116	$ 3,737	$ 3,562

The increase in R&D expense for 2019 was driven primarily by higher spend in research and early pipeline in support of our oncology programs, offset partially by lower marketed-product support.

The increase in R&D expense for 2018 was driven by higher spend on our early pipeline and later-stage clinical programs as well as external business development expense in research and early pipeline, offset partially by lower marketed-product support.

Selling, general and administrative

The decrease in Selling, general and administrative (SG&A) expenses for 2019 was driven primarily by lower general and administrative expenses, the end of certain amortization charges in 2018 and lower spend for launched and marketed products, offset partially by spending for Otezla® commercial-related expenses.

The increase in SG&A expense for 2018 was driven primarily by investments in product launches and marketed-product support.

Other

Other operating expenses for 2019 included $47 million in restructuring costs.

Other operating expenses for 2018 included a $330 million impairment charge associated with an IPR&D asset and a $42 million favorable net change in the fair values of contingent consideration liabilities. See Part IV—Note 17, Fair value measurement, to the Consolidated Financial Statements.

Other operating expenses for 2017 included $284 million of impairment-related charges associated with an intangible asset acquired in a business combination and $83 million of certain net charges related to a restructuring plan.

Nonoperating expenses/income and income taxes

Nonoperating expenses/income and income taxes were as follows (dollar amounts in millions):

	Years ended December 31,		
	2019	**2018**	**2017**
Interest expense, net	$ 1,289	$ 1,392	$ 1,304
Interest and other income, net	$ 753	$ 674	$ 928
Provision for income taxes	$ 1,296	$ 1,151	$ 7,618
Effective tax rate	14.2%	12.1%	79.4%

Interest expense, net

The decrease in Interest expense, net, for 2019 was due primarily to a reduction in outstanding long-term debt as a result of maturities in the current year.

The increase in Interest expense, net, for 2018 was due primarily to the impact of rising interest rates on variable-rate debt.

Interest and other income, net

The increase in Interest and other income, net, for 2019 was due primarily to net gains on sales of investments in interest-bearing securities liquidated to fund our acquisition of Otezla® and our investment in BeiGene compared with losses in the prior year, offset partially by reduced interest income as a result of lower average cash balances and a gain recognized in connection with our acquisition of Kirin-Amgen, Inc. (K-A), in the first quarter of 2018. See Part IV—Note 2, Acquisitions, and Note 21, Subsequent events, to the Consolidated Financial Statements.

The decrease in Interest and other income, net, for 2018 was due primarily to higher investment losses and lower interest income as a result of the liquidation of a portion of our portfolio, offset partially by gains on our equity investments and a net gain recognized in connection with our acquisition of K-A.

Income taxes

The increase in our effective tax rate for 2019 compared with 2018 was due primarily to a prior-year tax benefit associated with intercompany sales under U.S. corporate tax reform.

The decrease in our effective tax rate for 2018 compared with 2017 was due primarily to impacts of U.S. corporate tax reform.

As previously disclosed, we received an RAR from the IRS for the years 2010, 2011 and 2012. The RAR proposes to make significant adjustments that relate primarily to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. In November 2017, we received a modified RAR that revised the IRS's calculation but continued to propose substantial adjustments. We disagree with the proposed adjustments and are pursuing resolution with the IRS administrative appeals office, which currently has jurisdiction over the matter. If we deem necessary, we will vigorously contest the proposed adjustments through the judicial process. Final resolution of this complex matter is not likely within the next 12 months and could have a material impact on our consolidated financial statements. We believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes, the ultimate resolution of any tax matters may result in payments substantially greater or less than amounts accrued.

See Summary of Critical Accounting Policies—Income taxes, and Part IV—Note 6, Income taxes, to the Consolidated Financial Statements.

Financial Condition, Liquidity and Capital Resources

Selected financial data was as follows (in millions):

	December 31,	
	2019	2018
Cash, cash equivalents and marketable securities	$ 8,911	$ 29,304
Total assets	$ 59,707	$ 66,416
Current portion of long-term debt	$ 2,953	$ 4,419
Long-term debt	$ 26,950	$ 29,510
Stockholders' equity	$ 9,673	$ 12,500

Cash, cash equivalents and marketable securities

We have global access to our $8.9 billion balance of cash, cash equivalents and marketable securities. The primary objective of our investment portfolio is to maintain safety of principal, prudent levels of liquidity and acceptable levels of risk. Our investment policy limits interest-bearing security investments to certain types of debt and money market instruments issued by institutions with primarily investment-grade credit ratings, and it places restrictions on maturities and concentration by asset class and issuer.

Capital allocation

Consistent with the objective to optimize our capital structure, we seek to deploy our accumulated cash balances in an efficient manner, and we consider several alternatives such as payment of dividends, stock repurchases, repayment of debt and strategic transactions that expand our portfolio of products in areas of therapeutic interest.

We intend to continue to invest in our business while returning capital to stockholders through the payment of cash dividends and stock repurchases, thereby reflecting our confidence in the future cash flows of our business. The timing and amount of future dividends and stock repurchases will vary based on a number of factors, including future capital requirements for strategic transactions, availability of financing on acceptable terms, debt service requirements, our credit rating, changes to applicable tax laws or corporate laws, changes to our business model and periodic determination by our Board of Directors that cash dividends and/or stock repurchases are in the best interests of stockholders and are in compliance with applicable laws and the Company's agreements. In addition, the timing and amount of stock repurchases may also be affected by stock price and blackout periods, during which we are restricted from repurchasing stock. The manner of stock repurchases may include private block purchases, tender offers and market transactions.

The Board of Directors declared quarterly cash dividends of $1.15 per share of common stock paid in 2017, increased our quarterly cash dividend by 15% to $1.32 per share of common stock paid in 2018 and increased our quarterly cash dividend by 10% to $1.45 per share of common stock paid in 2019. In December 2019, the Board of Directors declared a cash dividend of $1.60 per share of common stock for the first quarter of 2020, an increase of 10% for this period, to be paid in March 2020.

We also returned capital to stockholders through our stock repurchase program. During 2019, we repurchased $7.6 billion of common stock and had cash settlements of $7.7 billion. In 2018, we repurchased $17.9 billion of common stock and had cash settlements of $17.8 billion, which included 52.1 million shares of common stock repurchased through a $10.0 billion tender offer. In 2017, we repurchased $3.1 billion of common stock and had cash settlements of $3.2 billion. In May 2019 and December 2019,

our Board of Directors increased the amount authorized under our stock repurchase program by an additional $5.0 billion and $4.0 billion, respectively. As of December 31, 2019, $6.5 billion remained available under the stock repurchase program.

As a result of stock repurchases and quarterly dividend payments, we have an accumulated deficit as of December 31, 2019 and 2018. Our accumulated deficit is not expected to affect our future ability to operate, repurchase stock, pay dividends or repay our debt given our continuing profitability and strong financial position.

We believe that existing funds, cash generated from operations and existing sources of and access to financing are adequate to satisfy our needs for working capital, capital expenditure and debt service requirements, our plans to pay dividends and repurchase stock and other business initiatives we plan to strategically pursue, including acquisitions and licensing activities. We anticipate that our liquidity needs can be met through a variety of sources, including cash provided by operating activities, sales of marketable securities, borrowings through commercial paper and/or syndicated credit facilities and access to other domestic and foreign debt markets and equity markets. See Part I, Item 1A. Risk Factors—*Global economic conditions may negatively affect us and may magnify certain risks that affect our business*.

Financing arrangements

The current and noncurrent portions of our long-term borrowings as ofDecember 31, 2019, were $3.0 billion and $27.0 billion, respectively. The current and noncurrent portions of our long-term borrowings as of December 31, 2018, were $4.4 billion and $29.5 billion, respectively. As of December 31, 2019, Standard & Poor's Financial Services LLC (S&P), Moody's Investors Service, Inc. (Moody's), and Fitch Ratings, Inc. (Fitch), assigned credit ratings to our outstanding senior notes of A- with a stable outlook, Baa1 with a stable outlook and BBB+ with a stable outlook, respectively, which are considered investment grade. Unfavorable changes to these ratings may have an adverse impact on future financings.

During 2019 and 2018, we did not issue any debt or debt securities. During2017, we issued debt with an aggregate principal amount of $4.5 billion During 2019, 2018 and 2017, we repaid debt of $4.5 billion, $1.1 billion and $4.4 billion, respectively.

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that effectively converted a fixed-rate interest coupon for certain of our debt issuances to a floating LIBOR-based coupon over the life of the respective note. These interest rate swap contracts qualify and are designated as fair value hedges. As of December 31, 2019 and 2018, we had interest rate swap contracts with aggregate notional amounts of$9.6 billion and $11.0 billion, respectively.

To hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term notes denominated in foreign currencies, we entered into cross-currency swap contracts, which effectively convert the interest payments and principal repayment of the respective notes from euros, pounds sterling and Swiss francs to U.S. dollars. These cross-currency swap contracts qualify and are designated as cash flow hedges. As of December 31, 2019 and 2018, we had cross-currency swap contracts with aggregate notional amounts of $4.8 billion and $5.6 billion, respectively.

As of December 31, 2019, we had a commercial paper program that allows us to issue up to $2.5 billion of unsecured commercial paper to fund our working-capital needs. During 2017, we issued and repaid an aggregate of $12.3 billion of commercial paper and had a maximum outstanding balance of $1.5 billion under our commercial paper program. During 2019 and 2018, we did not issue any commercial paper. No commercial paper was outstanding as of December 31, 2019 or 2018.

In 2019, we amended and restated our $2.5 billion syndicated, unsecured, revolving credit agreement, which is available for general corporate purposes or as a liquidity backstop to our commercial paper program. The commitments under the revolving credit agreement may be increased by up to $750 million with the agreement of the banks. Each bank that is a party to the agreement has an initial commitment term of five years. This term may be extended for up to two additional one-year periods with the agreement of the banks. Annual commitment fees for this agreement are 0.09% of the unused portion of the facility based on our current credit rating. Generally, we would be charged interest for any amounts borrowed under this facility, based on our current credit rating, at (i) LIBOR plus 1% or (ii) the highest of (A) the syndication agent bank base commercial lending rate, (B) the overnight federal funds rate plus 0.50% or (C) one-month LIBOR plus 1%. The agreement contains provisions relating to the determination of successor rates to address the possible phase-out or unavailability of designated reference rates. As of December 31, 2019 and 2018, no amounts were outstanding under this facility.

It is anticipated that LIBOR will be phased out and replaced by 2022. While various replacement reference rates have been discussed, an alternative reference rate to LIBOR has not yet been widely adopted. Therefore, the mechanics to modify existing contracts that reference LIBOR have not been finalized. However, we do not expect that a change in the reference rate of our contracts will be material. See Part 1, Item 1A. Risk Factors—*Our sales and operations are subject to the risks of doing business internationally, including in emerging markets.*

In February 2020, we filed a shelf registration statement with the SEC that allows us to issue unspecified amounts of debt securities; common stock; preferred stock; warrants to purchase debt securities, common stock, preferred stock or depositary shares; rights to purchase common stock or preferred stock; securities purchase contracts; securities purchase units; and depositary shares. Under this shelf registration statement, all of the securities available for issuance may be offered from time to time with terms to be determined at the time of issuance. This shelf registration statement expires in February 2023.

Certain of our financing arrangements contain nonfinancial covenants. In addition, our revolving credit agreement includes a financial covenant, which requires that we maintain a specified minimum interest coverage ratio of (i) the sum of consolidated net income, interest expense, provision for income taxes, depreciation expense, amortization expense, unusual or nonrecurring charges and other noncash items (Consolidated EBITDA) to (ii) Consolidated Interest Expense, each as defined and described in the credit agreement. We were in compliance with all applicable covenants under these arrangements as of December 31, 2019.

See Part IV—Note 15, Financing arrangements, and Note 18, Derivative instruments, to the Consolidated Financial Statements.

Cash flows

Our summarized cash flow activity was as follows (in millions):

	Years ended December 31,		
	2019	2018	2017
Net cash provided by operating activities	$ 9,150	$ 11,296	$ 11,177
Net cash provided by (used in) investing activities	$ 5,709	$ 14,339	$ (4,024)
Net cash used in financing activities	$ (15,767)	$ (22,490)	$ (6,594)

Operating

Cash provided by operating activities has been and is expected to continue to be our primary recurring source of funds. Cash provided by operating activities decreased during 2019 due primarily to changes in working capital, an increase in payments to the IRS related to an advance deposit and lower Net income. Cash provided by operating activities increased during 2018 due primarily to improvements in working capital, offset partially by higher payments to tax authorities.

Investing

Cash provided by investing activities during 2019 and 2018 was due primarily to net cash inflows related to marketable securities of $20.0 billion and $15.0 billion, respectively. The liquidation of portions of our marketable securities portfolio in 2019 was due primarily to fund the acquisition of Otezla® and our investment in BeiGene and, in 2018, to fund the tender offer to repurchase our common stock. Cash used in investing activities during 2017 was due primarily to net cash outflows related to marketable securities of $3.2 billion. Capital expenditures were $618 million, $738 million and $664 million in 2019, 2018 and 2017, respectively. We currently estimate 2020 spending on capital projects to be approximately $700 million.

Financing

Cash used in financing activities during 2019 was due primarily to repurchases of our common stock of $7.7 billion, repayments of debt of $4.5 billion and payments of dividends of $3.5 billion. Cash used in financing activities during 2018 was due primarily to repurchases of our common stock of $17.8 billion, payments of dividends of $3.5 billion and repayments of debt of $1.1 billion. Cash used in financing activities during 2017 was due primarily to payments of dividends of $3.4 billion and repurchases of common stock of $3.2 billion, offset partially by proceeds from issuances of debt, net of repayments, of $71 million.

See Part IV—Note 15, Financing arrangements, and Note 16, Stockholders' equity, to the Consolidated Financial Statements.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that are material or reasonably likely to become material to our consolidated financial position or consolidated results of operations.

Contractual Obligations

Contractual obligations represent future cash commitments and liabilities under agreements with third parties and exclude contingent liabilities for which we cannot reasonably predict future payment. Additionally, the expected timing of payment of the obligations presented below is estimated based on current information. Timing of payments and actual amounts paid may be different depending on the timing of receipt of goods or services or changes to agreed-upon terms or amounts for some obligations.

The following table represents our contractual obligations aggregated by type (in millions):

	Payments due by period as of December 31, 2019				
Contractual obligations	**Total**	**Year 1**	**Years 2 and 3**	**Years 4 and 5**	**Years 6 and beyond**
Long-term debt obligations [1] [2] [3]	$ 48,080	$ 4,086	$ 9,612	$ 4,467	$ 29,915
Operating lease obligations [4]	910	159	266	157	328
Purchase obligations [5]	1,938	1,512	255	100	71
U.S. repatriation tax [6]	6,162	587	1,174	2,567	1,834
Unrecognized tax benefits (UTBs) [7]	—	—	—	—	—
Total contractual obligations	$ 57,090	$ 6,344	$ 11,307	$ 7,291	$ 32,148

[1] Long-term debt obligations include future interest payments on our fixed-rate obligations at the contractual coupon rates. To achieve a desired mix of fixed-rate and floating-rate debt, we enter into interest rate swap contracts that effectively convert a fixed-rate interest coupon for certain of our debt issuances to a floating LIBOR-based coupon over the terms of the related hedge contracts. We used an interest rate forward curve as of December 31, 2019, in computing net amounts to be paid or received under our interest rate swap contracts, which resulted in an aggregate net decrease in future interest payments of $309 million. See Part IV—Note 15, Financing arrangements, to the Consolidated Financial Statements.

[2] Long-term debt obligations include future interest payments on our LIBOR-based variable-rate obligations. We used an interest rate forward curve as of December 31, 2019, in computing the LIBOR-based portion of interest payments on these debt obligations. See Part IV—Note 15, Financing arrangements, to the Consolidated Financial Statements.

[3] Long-term debt obligations include contractual interest payments and principal repayments of our foreign-denominated debt obligations. In order to hedge our exposure to foreign currency exchange rate risk associated with certain of our euro-, pound-sterling- and Swiss-franc-denominated long-term debt, we entered into cross-currency swap contracts that effectively converted interest payments and principal repayments on this debt from euros, pounds sterling and Swiss francs to U.S. dollars. For purposes of this table, we used the contracted exchange rates in the cross-currency swap contracts to compute the net amounts of future interest payments and principal repayments on this debt. See Part IV—Note 18, Derivative instruments, to the Consolidated Financial Statements.

[4] Operating lease obligations includes payments for leases that have not yet commenced, net of lease incentives, and excludes$141 million of future receipts under noncancelable subleases of abandoned facilities.

[5] Purchase obligations relate primarily to (i) R&D commitments (including those related to clinical trials) for new and existing products, (ii) capital expenditures and (iii) open purchase orders for the acquisition of goods and services in the ordinary course of business. Our obligation to pay certain of these amounts may be reduced based on certain future events.

[6] Under the 2017 Tax Act, we elected to pay in eight annual installments the repatriation tax related primarily to our prior indefinitely invested earnings of our foreign operations. See Part IV—Note 19, Contingencies and commitments—Commitments – U.S. repatriation tax, to the Consolidated Financial Statements.

[7] Liabilities for UTBs are not included in the table above because due to their nature there is a high degree of uncertainty regarding the timing of future cash outflows and other events that extinguish these liabilities. See Part IV—Note 6, Income taxes, to the Consolidated Financial Statements.

In addition to amounts in the table above, we are contractually obligated to pay additional amounts, which in the aggregate are significant, upon the achievement of various development, regulatory and commercial milestones for agreements we have entered into with third parties, including contingent consideration incurred in the acquisitions of K-A and BioVex Group Inc. (BioVex). These payments are contingent upon the occurrence of various future events, substantially all of which have a high degree of uncertainty of occurring. These contingent payments have not been included in the table above, and except with respect to the fair value of the contingent consideration obligations, are not recorded on our Consolidated Balance Sheets. As of December 31, 2019, the maximum amount that may be payable in the future for agreements we have entered into with third parties is $7.3 billion, including $325 million of contingent consideration payments in connection with the acquisition of BioVex. Contingent

consideration with respect to the acquisition of Dezima Pharma B.V. was excluded due to the discontinuation of the development of AMG 899, upon which payments are based. See Part IV—Note 17, Fair value measurement, to the Consolidated Financial Statements.

Summary of Critical Accounting Policies

The preparation of our consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and the notes to the financial statements. Some of those judgments can be subjective and complex, and therefore, actual results could differ materially from those estimates under different assumptions or conditions.

Product sales and sales deductions

Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, based on an amount that reflects the consideration to which we expect to be entitled, net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions (collectively, sales deductions) and returns established at the time of sale.

We analyze the adequacy of our accruals for sales deductions quarterly. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that adjustment is appropriate. Accruals are also adjusted to reflect actual results. Amounts recorded in Accrued liabilities in the Consolidated Balance Sheets for sales deductions were as follows (in millions):

	Rebates	Chargebacks	Other deductions	Total
Balance as of December 31, 2016	$ 1,417	$ 342	$ 115	$ 1,874
Amounts charged against product sales	4,909	6,098	992	11,999
Payments	(4,459)	(6,168)	(999)	(11,626)
Balance as of December 31, 2017	1,867	272	108	2,247
Amounts charged against product sales	6,180	6,926	1,180	14,286
Payments	(5,458)	(6,744)	(1,161)	(13,363)
Balance as of December 31, 2018	2,589	454	127	3,170
Amounts charged against product sales	6,825	7,090	1,292	15,207
Payments	(6,249)	(6,985)	(1,263)	(14,497)
Balance as of December 31, 2019	$ 3,165	$ 559	$ 156	$ 3,880

For the years ended December 31, 2019, 2018 and 2017, total sales deductions were 41%, 39% and 35% of gross product sales, respectively. The increase in the total sales deductions balance as of December 31, 2019 compared to December 31, 2018, was driven primarily by the impact of increases in U.S. rebates and to a lesser extent, higher chargebacks. Included in the amounts are immaterial net adjustments related to prior-year sales due to changes in estimates. Such amounts represent less than 1% of the aggregate sales deductions charged against product sales in the years ended December 31, 2019, 2018 and 2017.

In the United States, we utilize wholesalers as the principal means of distributing our products to healthcare providers such as physicians or their clinics, dialysis centers, hospitals and pharmacies. Products we sell in Europe are distributed principally to hospitals and/or wholesalers depending on the distribution practice in each country where the products are sold. We monitor the inventory levels of our products at our wholesalers by using data from our wholesalers and other third parties, and we believe wholesaler inventories have been maintained at appropriate levels (generally two to three weeks) given end-user demand. Accordingly, historical fluctuations in wholesaler inventory levels have not significantly affected our method of estimating sales deductions and returns.

Accruals for sales deductions are based primarily on estimates of the amounts earned or to be claimed on the related sales. These estimates take into consideration current contractual and statutory requirements, specific known market events and trends, internal and external historical data and forecasted customer buying patterns. Sales deductions are substantially product specific and therefore, for any given year, can be affected by the mix of products sold.

Rebates include primarily amounts paid to payers and providers in the United States, including those paid to state Medicaid programs, and are based on contractual arrangements or statutory requirements, which vary by product, by payer and by individual payer plans. As we sell products, we estimate the amount of rebate we will pay based on the product sold, contractual terms, estimated patient population, historical experience and wholesaler inventory levels; and we accrue these rebates in the period the related sales are recorded. We then adjust the rebate accruals as more information becomes available and to reflect actual claims experience. Estimating such rebates is complicated, in part because of the time delay between the date of sale and the actual

settlement of the liability. We believe the methodology we use to accrue for rebates is reasonable and appropriate given current facts and circumstances, but actual results may differ.

Wholesaler chargebacks relate to our contractual agreements to sell products to healthcare providers in the United States at fixed prices that are lower than the prices we charge wholesalers. When healthcare providers purchase our products through wholesalers at these reduced prices, wholesalers charge us for the difference between their purchase prices and the contractual prices between Amgen and the healthcare providers. The provision for chargebacks is based on the expected sales by our wholesaler customers to healthcare providers. Accruals for wholesaler chargebacks are less difficult to estimate than rebates are, and they closely approximate actual results since chargeback amounts are fixed at the date of purchase by the healthcare providers and because we generally settle the liability for these deductions within a few weeks.

Product returns

Returns are estimated through comparison of historical return data to their related sales on a production lot basis. Historical rates of return are determined for each product and are adjusted for known or expected changes in the marketplace specific to each product, when appropriate. In each of the past three years, sales return provisions have amounted to less than 1% of gross product sales. Changes in estimates for prior-year sales return provisions have historically been immaterial.

Income taxes

We provide for income taxes based on pretax income and applicable tax rates in the various jurisdictions in which we operate.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the tax authorities based on the technical merits of the position. The tax benefit recognized in the consolidated financial statements for a particular tax position is measured based on the largest benefit that is more likely than not to be realized. The amount of UTBs is adjusted as appropriate for changes in facts and circumstances, such as significant amendments to existing tax law, new regulations or interpretations by the tax authorities, new information obtained during a tax examination or resolution of an examination. We believe our estimates for uncertain tax positions are appropriate and sufficient for any assessments that may result from examinations of our tax returns. We recognize both accrued interest and penalties, where appropriate, related to UTBs in income tax expense.

Certain items are included in our tax return at different times than they are reflected in the financial statements and cause temporary differences between the tax bases of assets and liabilities and their reported amounts. Such temporary differences create deferred tax assets and liabilities. Deferred tax assets are generally items that can be used as a tax deduction or credit in the tax return in future years but for which we have already recorded the tax benefit in the consolidated financial statements. We establish valuation allowances against our deferred tax assets when the amount of expected future taxable income is not likely to support the use of the deduction or credit. Deferred tax liabilities are either (i) tax expenses recognized in the consolidated financial statements for which payment has been deferred, (ii) expenses for which we have already taken a deduction on the tax return but have not yet recognized in the consolidated financial statements or (iii) liabilities for the difference between the book basis and tax basis of the intangible assets acquired in many business combinations, as future expenses associated with these assets most often will not be tax deductible.

We are a vertically-integrated enterprise with operations in the United States and various foreign jurisdictions. We are subject to income tax in the foreign jurisdictions where we conduct operations based on the tax laws and principles of such jurisdictions and the functions, risks and activities performed therein. Our pretax income is therefore attributed to domestic or foreign sources based on the operations performed and risks assumed in each location and the tax laws and principles of the respective taxing jurisdictions. For example, we conduct significant operations in Puerto Rico, a territory of the United States that is treated as a foreign jurisdiction for U.S. tax purposes, pertaining to manufacturing, distribution and other related functions to meet our worldwide product demand. Income from our operations in Puerto Rico is subject to tax incentive grants through 2035.

As previously disclosed, we received an RAR from the IRS for the years 2010, 2011 and 2012. The RAR proposes to make significant adjustments that relate primarily to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. In November 2017, we received a modified RAR that revised the IRS's calculation but continued to propose substantial adjustments. We disagree with the proposed adjustments and are pursuing resolution with the IRS administrative appeals office, which currently has jurisdiction over the matter. If we deem necessary, we will vigorously contest the proposed adjustments through the judicial process. Final resolution of this complex matter is not likely within the next 12 months and could have a material impact on our consolidated financial statements. We believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes, the ultimate resolution of any tax matters may result in payments substantially greater or less than amounts accrued. See Part IV—Note 6, Income taxes, to the Consolidated Financial Statements.

Our operations are subject to the tax laws, regulations and administrative practices of the United States, U.S. state jurisdictions and other countries, including the U.S. territory of Puerto Rico, in which we do business. Significant changes in these rules could have a material adverse effect on our results of operations. See Part I, Item 1A. Risk Factors—*The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability*

Contingencies

In the ordinary course of business, we are involved in various legal proceedings, government investigations and other matters such as intellectual property disputes, contractual disputes and class action suits which are complex in nature and have outcomes that are difficult to predict. We describe our legal proceedings and other matters that are significant or that we believe could become significant in Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. We record accruals for loss contingencies to the extent that we conclude that it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. We evaluate, on a quarterly basis, developments in legal proceedings and other matters that could cause an increase or decrease in the amount of the liability that has been accrued previously.

While it is not possible to accurately predict or determine the eventual outcomes of these items, an adverse determination in one or more of these items currently pending could have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Valuation of assets and liabilities in connection with acquisitions

We have acquired and continue to acquire intangible assets in connection with business combinations and asset acquisitions. These intangible assets consist primarily of technology associated with currently marketed human therapeutic products and IPR&D product candidates. Discounted cash flow models are typically used to determine the fair values of these intangible assets for purposes of allocating consideration paid to the net assets acquired in an acquisition. See Part IV—Note 2, Acquisitions, to the Consolidated Financial Statements. These models require the use of significant estimates and assumptions, including but not limited to:

- determining the timing and expected costs to complete in-process projects, taking into account the stage of completion at the acquisition date;
- projecting the probability and timing of obtaining marketing approval from the FDA and other regulatory agencies for product candidates;
- estimating the timing of and future net cash flows from product sales resulting from completed products and in-process projects; and
- developing appropriate discount rates to calculate the present values of the cash flows.

Significant estimates and assumptions are also required to determine the business combination date fair values of any contingent consideration obligations incurred in connection with business combinations. In addition, we must revalue these obligations each subsequent reporting period until the related contingencies are resolved and record changes in their fair values in earnings. The acquisition date fair values of contingent consideration obligations incurred or assumed in the acquisitions were determined using a combination of valuation techniques. Significant estimates and assumptions required for these valuations included but were not limited to the probability of achieving regulatory milestones, product sales projections under various scenarios and discount rates used to calculate the present value of the required payments. These estimates and assumptions are required to be updated in order to revalue these contingent consideration obligations each reporting period. Accordingly, subsequent changes in underlying facts and circumstances could result in changes in these estimates and assumptions, which could have a material impact on the estimated future fair values of these obligations.

We believe the fair values used to record intangible assets acquired and contingent consideration obligations incurred in connection with business combinations and assets acquisitions are based on reasonable estimates and assumptions given the facts and circumstances as of the related valuation dates.

Impairment of long-lived assets

We review the carrying value of our property, plant and equipment and our finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If such circumstances exist, an estimate of undiscounted future cash flows to be generated by the long-lived asset is compared to the carrying value to determine whether an impairment exists. If an asset is determined to be impaired, the loss is measured based on the difference between the asset's fair value and its carrying value.

Indefinite-lived intangible assets, composed of IPR&D projects acquired in a business combination that have not reached technological feasibility or that lack regulatory approval at the time of acquisition, are reviewed for impairment annually, whenever events or changes in circumstances indicate that the carrying amount may not be recoverable and upon establishment of technological feasibility or regulatory approval. We determine impairment by comparing the fair value of the asset to its carrying value. If the asset's carrying value exceeds its fair value, an impairment charge is recorded for the difference, and its carrying value is reduced accordingly.

Estimating future cash flows of an IPR&D product candidate for purposes of an impairment analysis requires us to make significant estimates and assumptions regarding the amount and timing of costs to complete the project and the amount, timing and probability of achieving revenues from the completed product similar to how the acquisition date fair value of the project was determined, as described above. There are often major risks and uncertainties associated with IPR&D projects as we are required to obtain regulatory approvals in order to be able to market these products. Such approvals require completing clinical trials that demonstrate a product candidate is safe and effective. Consequently, the eventual realized value of the acquired IPR&D project may vary from its fair value at the date of acquisition, and IPR&D impairment charges may occur in future periods which could have a material adverse effect on our results of operations.

We believe our estimations of future cash flows used for assessing impairment of long-lived assets are based on reasonable assumptions given the facts and circumstances as of the related dates of the assessments.

Recently Issued Accounting Standards

See Part IV—Note 1, Summary of significant accounting policies, to the Consolidated Financial Statements for a discussion of recently adopted accounting pronouncements and recently issued accounting pronouncements not yet adopted as of December 31, 2019.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks that may result from changes in interest rates, foreign currency exchange rates and prices of equity instruments as well as changes in general economic conditions in the countries where we conduct business. To reduce certain of these risks, we enter into various types of foreign currency and interest rate derivative hedging transactions as part of our risk management program. We do not use derivatives for speculative trading purposes.

In the discussion that follows, we have assumed a hypothetical change in interest rates of 100 basis points from those as of December 31, 2019 and 2018. Except as noted below, we have also assumed a hypothetical 20% change in foreign currency exchange rates against the U.S. dollar based on its position relative to other currencies as of December 31, 2019 and 2018.

Interest-rate-sensitive financial instruments

Our portfolio of available-for-sale investments as of December 31, 2019 and 2018, was composed of U.S. Treasury securities, corporate debt securities, residential-mortgage-backed and other mortgage- and asset-backed securities, money market mutual funds and other short-term interest-bearing securities composed principally of commercial paper, and with respect to investments as of December 31, 2018, other government-related securities. The fair values of our available-for-sale investments were $8.2 billion and $28.7 billion as of December 31, 2019 and 2018, respectively. Duration is a sensitivity measure that can be used to approximate the change in the value of a security that will result from a 100 basis point change in interest rates. Applying a duration model, a hypothetical 100 basis point increase in interest rates as of December 31, 2019, would not have resulted in a material reduction in the fair value of these securities, and with respect to available-for-sale securities as of December 31, 2018, would have resulted in a reduction of approximately $360 million in fair value. In addition, a hypothetical 100 basis point decrease in interest rates as of December 31, 2019 and 2018, would not result in a material effect on income in the respective ensuing year.

As of December 31, 2019, we had outstanding debt with a carrying value of $29.9 billion and a fair value of $33.7 billion. As of December 31, 2018, we had outstanding debt with a carrying value of $33.9 billion and a fair value of $35.0 billion. Our outstanding debt was composed primarily of debt with fixed interest rates, with variable-rate debt having carrying values of $300 million and $850 million as of December 31, 2019 and 2018, respectively. Changes in interest rates do not affect interest expense on fixed-rate debt. Changes in interest rates would, however, affect the fair values of fixed-rate debt. A hypothetical 100 basis

point decrease in interest rates relative to interest rates as of December 31, 2019 and 2018, would have resulted in increases of $3.0 billion and $2.6 billion, respectively, in the aggregate fair value of our outstanding debt on each of these dates. Analysis of the debt does not consider the impact that hypothetical changes in interest rates would have on the related interest rate swap contracts and cross-currency swap contracts, discussed below.

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that qualified and were designated for accounting purposes as fair value hedges for certain of our fixed-rate debt. These interest rate swap contracts effectively converted a fixed-rate interest coupon to a floating-rate LIBOR-based coupon over the life of the respective note. Interest rate swap contracts with aggregate notional amounts of $9.6 billion and $11.0 billion were outstanding as of December 31, 2019 and 2018, respectively. A hypothetical 100 basis point increase in interest rates relative to interest rates as of December 31, 2019 and 2018, would have resulted in reductions in fair values of approximately $380 million and $460 million, respectively, on our interest rate swap contracts on these dates and would not result in a material effect on the related income in the respective ensuing years. Analysis of the interest rate swap contracts does not consider the impact that hypothetical changes in interest rates would have on the related fair values of debt that these interest-rate-sensitive instruments were designed to offset.

As of December 31, 2019 and 2018, we had outstanding cross-currency swap contracts with aggregate notional amounts of $4.8 billion and $5.6 billion, respectively, that hedge our foreign-currency-denominated debt and related interest payments. These contracts effectively convert interest payments and principal repayment of this debt to U.S. dollars from euros, pounds sterling and Swiss francs and are designated for accounting purposes as cash flow hedges. A hypothetical 100 basis point adverse movement in interest rates relative to interest rates as of December 31, 2019 and 2018, would have resulted in reductions in the fair values of our cross-currency swap contracts of approximately $280 million and $320 million, respectively.

Foreign-currency-sensitive financial instruments

Our international operations are affected by fluctuations in the value of the U.S. dollar as compared to foreign currencies, predominantly the euro. Increases and decreases in our international product sales from movements in foreign currency exchange rates are offset partially by the corresponding increases or decreases in our international operating expenses. Increases and decreases in our foreign-currency-denominated assets from movements in foreign currency exchange rates are offset partially by the corresponding increases or decreases in our foreign-currency-denominated liabilities. To further reduce our net exposure to foreign currency exchange rate fluctuations on our results of operations, we enter into foreign currency forward, option and cross-currency swap contracts.

As of December 31, 2019, we had outstanding euro-, pound-sterling- and Swiss-franc-denominated debt with a principal carrying value and a fair value of $4.5 billion and $5.0 billion, respectively. As of December 31, 2018, we had outstanding euro-, pound-sterling- and Swiss-franc-denominated debt with a principal carrying value and a fair value of $5.3 billion and $5.6 billion, respectively. A hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2019, would have resulted in an increase in fair value of this debt of $1.0 billion on this date and a reduction in income in the ensuing year of $0.9 billion. A hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2018, would have resulted in an increase in fair value of this debt of $1.1 billion on this date and a reduction in income in the ensuing year of $1.1 billion. The impact on income from these hypothetical changes in foreign currency exchange rates would be substantially offset by the impact such changes would have on related cross-currency swap contracts, which are in place for the related foreign-currency-denominated debt.

We have cross-currency swap contracts that are designated as cash flow hedges of our debt denominated in euros, pounds sterling and Swiss francs with aggregate notional amounts of $4.8 billion and $5.6 billion as of December 31, 2019 and 2018, respectively. A hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates on these dates would have resulted in reductions in the fair values of these contracts of $1.0 billion and $1.2 billion on these dates, respectively. The impact of this hypothetical adverse movement in foreign currency exchange rates on ensuing years' income from these contracts would be fully offset by the corresponding hypothetical changes in the carrying amounts of the related hedged debt.

We enter into foreign currency forward and options contracts that are designated for accounting purposes as cash flow hedges of certain anticipated foreign currency transactions. As of December 31, 2019, we had primarily euro based open foreign currency forward contracts with notional amounts of $5.0 billion. As of December 31, 2018, we had primarily euro based open foreign currency forward and option contracts with notional amounts of $4.5 billion and $21 million, respectively. As of December 31, 2019, the fair values of these contracts were a $223 million asset and a $31 million liability. As of December 31, 2018, the fair values of these contracts were a $181 million asset and a $26 million liability. With regard to foreign currency forward and option contracts that were open as of December 31, 2019, a hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2019, would have resulted in a reduction in fair value of these contracts of approximately $930 million on this date and, in the ensuing year, a reduction in income of approximately $400 million. With regard to contracts that were open as of December 31, 2018, a hypothetical 20% adverse movement in foreign

currency exchange rates compared with the U.S. dollar relative to exchange rates as ofDecember 31, 2018, would have resulted in a reduction in fair value of these contracts of $810 million on this date and, in the ensuing year, a reduction in income of $380 million. The analysis does not consider the impact that hypothetical changes in foreign currency exchange rates would have on anticipated transactions that these foreign-currency-sensitive instruments were designed to offset.

As of December 31, 2019 and 2018, we had open short-duration foreign currency forward contracts that mature in less than one month with notional amounts of $1.2 billion and $737 million, respectively, that hedged fluctuations of certain assets and liabilities denominated in foreign currencies but were not designated as hedges for accounting purposes. These contracts had no material net unrealized gains or losses as of December 31, 2019 and 2018. With regard to these foreign currency forward contracts that were open as of December 31, 2019 and 2018, a hypothetical 5% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates on these dates would not have a material effect on the fair values of these contracts or related income in the respective ensuing years. The analysis does not consider the impact that hypothetical changes in foreign currency exchange rates would have on assets and liabilities that these foreign-currency-sensitive instruments were designed to offset.

Market-price-sensitive financial instruments

As of December 31, 2019 and 2018, we were exposed to price risk on equity securities included in our portfolio of investments, which were acquired primarily for the promotion of business and strategic objectives. These investments are generally in small-capitalization stocks in the biotechnology industry sector. Price risk relative to our equity investment portfolio as of December 31, 2019 and 2018, was not material.

Counterparty credit risks

Our financial instruments, including derivatives, are subject to counterparty credit risk, which we consider as part of the overall fair value measurement. Our financial risk management policy limits derivative transactions by requiring that transactions be made only with institutions with minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch; and it requires placing exposure limits on the amount with any individual counterparty. In addition, we have an investment policy that limits investments to certain types of debt and money market instruments issued by institutions primarily with investment-grade credit ratings and places restriction on maturities and concentrations by asset class and issuer.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this item is incorporated herein by reference to the financial statements and schedule listed in Item 15(a)1 and (a)2 of Part IV and included in this Annual Report on Form 10-K.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

We maintain "disclosure controls and procedures," as such term is defined under the Securities Exchange Act Rule 13a-15(e), that are designed to ensure that information required to be disclosed in Amgen's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to Amgen's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, Amgen's management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives and in reaching a reasonable level of assurance Amgen's management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. We have carried out an evaluation under the supervision and with the participation of our management, including Amgen's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of Amgen's disclosure controls and procedures. Based upon their evaluation and subject to the foregoing, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2019.

Management determined that, as of December 31, 2019, there were no changes in our internal control over financial reporting that occurred during the fiscal quarter then ended that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013 framework). Based on our assessment, management believes that the Company maintained effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

Management excluded Otezla®, which was acquired by us on November 21, 2019, from its assessment of internal control over financial reporting as of December 31, 2019. Total assets and revenues of Otezla® excluded from our assessment of internal control over financial reporting were approximately 0.6% of total assets and 0.8% of total revenues as of and for the period ended December 31, 2019.

The effectiveness of the Company's internal control over financial reporting has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their attestation report appearing below, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2019.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Amgen Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Amgen Inc.'s internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Amgen Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of the worldwide rights to Otezla® acquired from Celgene Corporation, which is included in the 2019 consolidated financial statements of the Company and constituted 0.6% of total assets, as of December 31, 2019 and 0.8% of revenues, for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of the worldwide rights to Otezla® acquired from Celgene Corporation.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and schedule and our report dated February 12, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Los Angeles, California

February 12, 2020

Item 9B. OTHER INFORMATION

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information about our Directors is incorporated by reference from the section entitled ITEM 1—ELECTION OF DIRECTORS in our Proxy Statement for the 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2019 (the Proxy Statement). Information about the procedures by which stockholders may recommend nominees for the Board of Directors is incorporated by reference from APPENDIX A—AMGEN INC. BOARD OF DIRECTORS GUIDELINES FOR DIRECTOR QUALIFICATIONS AND EVALUATIONS and OTHER MATTERS—Stockholder Proposals for the 2021 Annual Meeting in our Proxy Statement. Information about our Audit Committee, members of the committee and our Audit Committee financial experts is incorporated by reference from the section entitled CORPORATE GOVERNANCE—Audit Committee in our Proxy Statement. Information about our executive officers is contained in the discussion entitled Part I—Item 1. Business—Information about our Executive Officers.

Code of Ethics

We maintain a Code of Ethics for the Chief Executive Officer and Senior Financial Officers applicable to our principal executive officer, principal financial officer, principal accounting officer or controller, and other persons performing similar functions. To view this code of ethics free of charge, please visit our website at www.amgen.com. (This website address is not intended to function as a hyperlink, and the information contained in our website is not intended to be a part of this filing.) We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of this code of ethics, if any, by posting such information on our website as set forth above.

Item 11. EXECUTIVE COMPENSATION

Information about director and executive compensation is incorporated by reference from the section entitled EXECUTIVE COMPENSATION in our Proxy Statement. Information about compensation committee matters is incorporated by reference from the sections entitled CORPORATE GOVERNANCE—Compensation and Management Development Committee and CORPORATE GOVERNANCE—Compensation Committee Report in our Proxy Statement.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Securities Authorized for Issuance Under Existing Equity Compensation Plans

The following table sets forth certain information as of December 31, 2019, concerning the shares of our common stock that may be issued under any form of award granted under our equity compensation plans in effect as of December 31, 2019 (including upon the exercise of options, upon the vesting of awards of restricted stock units (RSUs) or when performance units are earned and related dividend equivalents have been granted).

	(a)	(b)	(c)
Plan category	Number of securities to be issued upon exercise of outstanding options and rights	Weighted-average exercise price of outstanding options and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by Amgen security holders:			
Amended and Restated 2009 Equity Incentive Plan[1]	10,233,680	$ 157.00	27,552,603
Amended and Restated 1991 Equity Incentive Plan[2]	13,439	—	—
Amended and Restated Employee Stock Purchase Plan	—	—	4,506,117
Total approved plans	10,247,119	157.00	32,058,720
Equity compensation plan not approved by Amgen security holders:			
Amgen Profit Sharing Plan for Employees in Ireland[3]	—	—	78,057
Total unapproved plans	—	—	78,057
Total all plans	10,247,119	$ 157.00	32,136,777

(1) The Amended and Restated 2009 Equity Incentive Plan employs a fungible share-counting formula for determining the number of shares available for issuance under the plan. In accordance with this formula, each option or stock appreciation right counts as one share, while each restricted stock unit, performance unit or dividend equivalent counts as 1.9 shares. The number under column (a) represents the actual number of shares issuable under our outstanding awards without giving effect to the fungible share-counting formula. The number under column (c) represents the number of shares available for issuance under this plan based on each such available share counting as one share. Commencing with the grants made in April 2012, RSUs and performance units accrue dividend equivalents that are payable in shares only to the extent and when the underlying RSUs vest or underlying performance units have been earned and the related shares are issued to the grantee. The performance units granted under this plan are earned based on the accomplishment of specified performance goals at the end of their respective three-year performance periods; the number of performance units granted represent target performance, and the maximum number of units that could be earned based on our performance is 200% of the performance units granted in 2017, 2018 and 2019.

As of December 31, 2019, the number of outstanding awards under column (a) includes (i) 4,823,162 shares issuable upon the exercise of outstanding options with a weighted-average exercise price of $157.00; (ii) 3,324,005 shares issuable upon the vesting of outstanding RSUs (including 180,878 related dividend equivalents); and (iii) 2,086,513 shares subject to outstanding 2017, 2018 and 2019 performance units (including 97,836 related dividend equivalents). The weighted-average exercise price shown in column (b) is for the outstanding options only. The number of available shares under column (c) represents the number of shares that remain available for future issuance under this plan as of December 31, 2019, employing the fungible share formula and presumes the issuance of target shares under the performance units granted in 2017, 2018 and 2019 and related dividend equivalents. The numbers under columns (a) and (c) do not give effect to the additional shares that could be issuable in the event above target performance on the performance goals under these outstanding performance units is achieved. Maximum performance under these goals could result in 200% of target shares being awarded for performance units granted in 2017, 2018 and 2019.

(2) This plan has terminated as to future grants. The number under column (a) with respect to this plan includes 13,439 shares issuable upon the settlement of deferred RSUs (including 2,357 related dividend equivalents).

(3) The Amgen Profit Sharing Plan for Employees in Ireland (the Profit Sharing Plan) was approved by the Board of Directors on July 28, 2011. The Profit Sharing Plan permits eligible employees of the Company's subsidiaries located in Ireland who participate in the Profit Sharing Plan to apply a portion of their qualifying bonus and salary to the purchase the Company's common stock on the open market at the market price by a third-party trustee as described in the Profit Sharing Plan.

Security Ownership of Directors and Executive Officers and Certain Beneficial Owners

Information about security ownership of certain beneficial owners and management is incorporated by reference from the sections entitled SECURITY OWNERSHIP OF DIRECTORS AND EXECUTIVE OFFICERS and SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS in our Proxy Statement.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information about certain relationships and related transactions and director independence is incorporated by reference from the sections entitled CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS and CORPORATE GOVERNANCE—Director Independence in our Proxy Statement.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information about the fees for professional services rendered by our independent registered public accountants is incorporated by reference from the section entitled AUDIT MATTERS—Independent Registered Public Accountants in our Proxy Statement.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)1. Index to Financial Statements

The following Consolidated Financial Statements are included herein:

(a)2. Index to Financial Statement Schedules

The following Schedule is filed as part of this Annual Report on Form 10-K:

All other schedules are omitted because they are not applicable, not required or because the required information is included in the consolidated financial statements or notes thereto.

(a)3. Exhibits

Exhibit No.	Description
2.1	Asset Purchase Agreement, dated August 25, 2019, by and between Amgen Inc. and Celgene Corporation. (Filed as an exhibit to Form 8-K on August 26, 2019 and incorporated herein by reference.)
2.2	Amendment No. 1 to the Asset Purchase Agreement, dated October 17, 2019, by and between Amgen Inc. and Celgene Corporation. (Filed as an exhibit to Form 8-K on October 17, 2019 and incorporated herein by reference.)
2.3*	Amendment No. 2 to the Asset Purchase Agreement, dated October 17, 2019, by and between Amgen Inc. and Celgene Corporation.
2.4*	Letter Agreement, dated November 21, 2019, by and between Amgen Inc. and the parties named therein re: Treatment of Certain Product Inventory in connection with Amgen's acquisition of Otezla®
2.5	Irrevocable Guarantee, dated August 25, 2019, by and between Amgen Inc. and Bristol-Myers Squibb Company. (Filed as an exhibit to Form 8-K on August 26, 2019 and incorporated herein by reference.)
3.1	Restated Certificate of Incorporation of Amgen Inc. (As Restated March 6, 2013.) (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2013 on May 3, 2013 and incorporated herein by reference.)
3.2	Amended and Restated Bylaws of Amgen Inc. (As Amended and Restated February 15, 2016.) (Filed as an exhibit to Form 8-K on February 17, 2016 and incorporated herein by reference.)
4.1	Form of stock certificate for the common stock, par value $.0001 of the Company. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 1997 on May 14, 1997 and incorporated herein by reference.)

4.2	Form of Indenture, dated January 1, 1992. (Filed as an exhibit to Form S-3 Registration Statement filed on December 19, 1991 and incorporated herein by reference.)
4.3	Agreement of Resignation, Appointment and Acceptance dated February 15, 2008. (Filed as an exhibit to Form 10-K for the year ended December 31, 2007 on February 28, 2008 and incorporated herein by reference.)
4.4	First Supplemental Indenture, dated February 26, 1997. (Filed as an exhibit to Form 8-K on March 14, 1997 and incorporated herein by reference.)
4.5	8-1/8% Debentures due April 1, 2097. (Filed as an exhibit to Form 8-K on April 8, 1997 and incorporated herein by reference.)
4.6	Officer's Certificate of Amgen Inc., dated April 8, 1997, establishing a series of securities entitled "8 1/8% Debentures due April 1, 2097." (Filed as an exhibit to Form 8-K on April 8, 1997 and incorporated herein by reference.)
4.7	Indenture, dated August 4, 2003. (Filed as an exhibit to Form S-3 Registration Statement on August 4, 2003 and incorporated herein by reference.)
4.8	Corporate Commercial Paper - Master Note between and among Amgen Inc., as Issuer, Cede & Co., as Nominee of The Depository Trust Company, and Citibank, N.A., as Paying Agent. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 1998 on May 13, 1998 and incorporated herein by reference.)
4.9	Officers' Certificate of Amgen Inc., dated May 30, 2007, including form of the Company's 6.375% Senior Notes due 2037. (Filed as an exhibit to Form 8-K on May 30, 2007 and incorporated herein by reference.)
4.10	Officers' Certificate of Amgen Inc., dated May 23, 2008, including form of the Company's 6.90% Senior Notes due 2038. (Filed as exhibit to Form 8-K on May 23, 2008 and incorporated herein by reference.)
4.11	Officers' Certificate of Amgen Inc., dated January 16, 2009, including form of the Company's 6.40% Senior Notes due 2039. (Filed as exhibit to Form 8-K on January 16, 2009 and incorporated herein by reference.)
4.12	Officers' Certificate of Amgen Inc., dated March 12, 2010, including forms of the Company's 4.50% Senior Notes due 2020 and 5.75% Senior Notes due 2040. (Filed as exhibit to Form 8-K on March 12, 2010 and incorporated herein by reference.)
4.13	Officers' Certificate of Amgen Inc., dated September 16, 2010, including forms of the Company's 3.45% Senior Notes due 2020 and 4.95% Senior Notes due 2041. (Filed as an exhibit to Form 8-K on September 17, 2010 and incorporated herein by reference.)
4.14	Officers' Certificate of Amgen Inc., dated June 30, 2011, including forms of the Company's 4.10% Senior Notes due 2021 and 5.65% Senior Notes due 2042. (Filed as an exhibit to Form 8-K on June 30, 2011 and incorporated herein by reference.)
4.15	Officers' Certificate of Amgen Inc., dated November 10, 2011, including forms of the Company's 3.875% Senior Notes due 2021 and 5.15% Senior Notes due 2041. (Filed as an exhibit to Form 8-K on November 10, 2011 and incorporated herein by reference.)
4.16	Officers' Certificate of Amgen Inc., dated December 5, 2011, including form of the Company's 5.50% Senior Notes due 2026. (Filed as an exhibit to Form 8-K on December 5, 2011 and incorporated herein by reference.)
4.17	Officers' Certificate of Amgen Inc., dated May 15, 2012, including forms of the Company's 3.625% Senior Notes due 2022 and 5.375% Senior Notes due 2043. (Filed as an exhibit to Form 8-K on May 15, 2012 and incorporated herein by reference.)
4.18	Officers' Certificate of Amgen Inc., dated September 13, 2012, including form of the Company's 4.000% Senior Notes due 2029. (Filed as an exhibit to Form 8-K on September 13, 2012 and incorporated herein by reference.)
4.19	Indenture, dated May 22, 2014, between Amgen Inc. and The Bank of New York Mellon Trust Company, N.A., as Trustee. (Filed as an exhibit to Form 8-K on May 22, 2014 and incorporated herein by reference.)
4.20	Officers' Certificate of Amgen Inc., dated May 22, 2014, including form of the Company's 3.625% Senior Notes due 2024. (Filed as an exhibit to Form 8-K on May 22, 2014 and incorporated herein by reference.)
4.21	Officer's Certificate of Amgen Inc., dated May 1, 2015, including forms of the Company's 2.125% Senior Notes due 2020, 2.700% Senior Notes due 2022, 3.125% Senior Notes due 2025 and 4.400% Senior Notes due 2045. (Filed as an exhibit on Form 8-K on May 1, 2015 and incorporated herein by reference.)

4.22	Officer's Certificate of Amgen Inc., dated as of February 25, 2016, including forms of the Company's 1.250% Senior Notes due 2022 and 2.000% Senior Notes due 2026. (Filed as an exhibit on Form 8-K on February 26, 2016 and incorporated herein by reference.)
4.23	Form of Permanent Global Certificate for the Company's 0.410% bonds due 2023. (Filed as an exhibit on Form 8-K on March 8, 2016 and incorporated herein by reference.)
4.24	Terms of the Bonds for the Company's 0.410% bonds due 2023. (Filed as an exhibit on Form 8-K on March 8, 2016 and incorporated herein by reference.)
4.25	Officer's Certificate of Amgen Inc., dated as of June 14, 2016, including forms of the Company's 4.563% Senior Notes due 2048 and 4.663% Senior Notes due 2051. (Filed as an exhibit to Form 8-K on June 14, 2016 and incorporated herein by reference.)
4.26	Officer's Certificate of Amgen Inc., dated as of August 19, 2016, including forms of the Company's 1.850% Senior Notes due 2021, 2.250% Senior Notes due 2023 and 2.600% Senior Notes due 2026. (Filed as an exhibit to Form 8-K on August 19, 2016 and incorporated herein by reference.)
4.27	Officer's Certificate of Amgen Inc., dated as of May 11, 2017 including forms of the Company's Senior Floating Rate Notes due 2020, 2.200% Senior Notes due 2020 and 2.650% Senior Notes due 2022. (Filed as an exhibit to Form 8-K on May 11, 2017 and incorporated herein by reference.)
4.28	Officer's Certificate of Amgen Inc., dated as of November 2, 2017, including in the form of the Company's 3.200% Senior Notes due 2027. (Filed as an exhibit to Form 8-K on November 2, 2017 and incorporated by reference.)
4.29*	Description of Amgen Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.
10.1+	Amgen Inc. Amended and Restated 2009 Equity Incentive Plan. (Filed as Appendix C to the Definitive Proxy Statement on Schedule 14A on April 8, 2013 and incorporated herein by reference.)
10.2+	First Amendment to Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, effective March 4, 2015. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2015 on April 27, 2015 and incorporated herein by reference.)
10.3+	Second Amendment to Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, effective March 2, 2016. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2016 on May 2, 2016 and incorporated herein by reference.)
10.4+*	Form of Grant of Stock Option Agreement for the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan. (As Amended on December 10, 2019.)
10.5+*	Form of Restricted Stock Unit Agreement for the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan. (As Amended on December 10, 2019.)
10.6+	Amgen Inc. 2009 Performance Award Program. (As Amended on December 12, 2017.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2017 on February 13, 2018 and incorporated herein by reference.)
10.7+*	Form of Performance Unit Agreement for the Amgen Inc. 2009 Performance Award Program. (As Amended on December 10, 2019.)
10.8+*	Amgen Inc. 2009 Director Equity Incentive Program. (As Amended on December 11, 2019.)
10.9+	Form of Grant of Non-Qualified Stock Option Agreement for the Amgen Inc. 2009 Director Equity Incentive Program. (Filed as an exhibit to Form 8-K on May 8, 2009 and incorporated herein by reference.)
10.10+*	Form of Restricted Stock Unit Agreement for the Amgen Inc. 2009 Director Equity Incentive Program. (As Amended on December 11, 2019.)
10.11+*	Form of Cash-Settled Restricted Stock Unit Agreement for the Amgen 2009 Director Equity Incentive Program. (As Amended on December 11, 2019.)
10.12+	Amgen Inc. Supplemental Retirement Plan. (As Amended and Restated effective October 16, 2013.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2013 on February 24, 2014 and incorporated herein by reference.)
10.13+	First Amendment to the Amgen Inc. Supplemental Retirement Plan, effective October 14, 2016. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2016 on October 28, 2016 and incorporated herein by reference.)

10.14+*	Second Amendment to the Amgen Inc. Supplemental Retirement Plan (As Amended and Restated effective October 23, 2019).
10.15+	Amended and Restated Amgen Change of Control Severance Plan. (As Amended and Restated effective December 9, 2010 and subsequently amended effective March 2, 2011.) (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2011 on May 10, 2011 and incorporated herein by reference.)
10.16+	Amgen Inc. Executive Incentive Plan. (As Amended and Restated effective January 1, 2009.) (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2008 on November 7, 2008 and incorporated herein by reference.)
10.17+	First Amendment to the Amgen Inc. Executive Incentive Plan, effective December 13, 2012. (Filed as an exhibit to Form 10-K for the year ended December 31, 2012 on February 27, 2013 and incorporated herein by reference.)
10.18+	Second Amendment to the Amgen Inc. Executive Incentive Plan, effective January 1, 2017. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2017 on April 27, 2017 and incorporated herein by reference.)
10.19+	Amgen Nonqualified Deferred Compensation Plan. (As Amended and Restated effective October 16, 2013.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2013 on February 24, 2014 and incorporated herein by reference.)
10.20+	First Amendment to the Amgen Nonqualified Deferred Compensation Plan, effective October 14, 2016. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2016 on October 28, 2016 and incorporated herein by reference.)
10.21+*	Second Amendment to the Amgen Nonqualified Deferred Compensation Plan (As Amended and Restated effective January 1, 2020).
10.22+	Agreement between Amgen Inc. and David W. Meline, effective July 21, 2014. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2014 on October 29, 2014 and incorporated herein by reference.)
10.23+	Agreement between Amgen Inc. and Jonathan Graham, dated May 11, 2015. (Filed as an exhibit to Form 10-Q/A for the quarter ended June 30, 2015 on August 6, 2015 and incorporated herein by reference.)
10.24+	Agreement between Amgen Inc. and Murdo Gordon, dated July 25, 2018. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2018 on October 31, 2018 and incorporated herein by reference.)
10.25	Second Amended and Restated Credit Agreement, dated December 12, 2019, among Amgen Inc., the Banks therein named, Citibank, N.A., as administrative agent, and JPMorgan Chase Bank, N.A., as syndication agent. (Filed as an exhibit to Form 8-K on December 12, 2019 and incorporated herein by reference.)
10.26	Collaboration and License Agreement between Amgen Inc. and Celltech R&D Limited dated May 10, 2002 (portions of the exhibit have been omitted pursuant to a request for confidential treatment) and Amendment No. 1, effective June 9, 2003, to Collaboration and License Agreement between Amgen Inc. and Celltech R&D Limited (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-K/A for the year ended December 31, 2012 on July 31, 2013 and incorporated herein by reference.)
10.27	Amendment No. 2 to Collaboration and License Agreement, effective November 14, 2016, between Amgen Inc. and Celltech R&D Limited (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-K for the year ended December 31, 2016 on February 14, 2017 and incorporated herein by reference.)
10.28	Letter Agreement, dated June 25, 2019, by and between Amgen Inc. and UCB Celltech (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2019 on July 31, 2019 and incorporated herein by reference.)
10.29	Collaboration Agreement, dated April 22, 1994, by and between Bayer Corporation (formerly Miles, Inc.) and Onyx Pharmaceuticals, Inc. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2011 by Onyx Pharmaceuticals, Inc. on May 10, 2011 and incorporated herein by reference.)
10.30	Amendment to Collaboration Agreement, dated April 24, 1996, by and between Bayer Corporation and Onyx Pharmaceuticals, Inc. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2006 by Onyx Pharmaceuticals, Inc. on May 10, 2006 and incorporated herein by reference.)
10.31	Amendment to Collaboration Agreement, dated February 1, 1999, by and between Bayer Corporation and Onyx Pharmaceuticals, Inc. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2006 by Onyx Pharmaceuticals, Inc. on May 10, 2006 and incorporated herein by reference.)

10.32	Settlement Agreement and Release, dated October 11, 2011, by and between Bayer Corporation, Bayer AG, Bayer HealthCare LLC and Bayer Pharma AG and Onyx Pharmaceuticals, Inc. (Filed as an exhibit to Form 10-K for the year ended December 31, 2011 by Onyx Pharmaceuticals, Inc. on February 27, 2012 and incorporated herein by reference.)
10.33	Fourth Amendment to Collaboration Agreement, dated October 11, 2011, by and between Bayer Corporation and Onyx Pharmaceuticals, Inc. (Filed as an exhibit to Form 10-K for the year ended December 31, 2011 by Onyx Pharmaceuticals, Inc. on February 27, 2012 and incorporated herein by reference.)
10.34	Side Letter Regarding Collaboration Agreement, dated May 29, 2015, by and between Bayer HealthCare LLC and Onyx Pharmaceuticals, Inc. (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2015 on August 5, 2015 and incorporated herein by reference.)
10.35	Sourcing and Supply Agreement, dated January 6, 2017, by and between Amgen USA Inc., a wholly owned subsidiary of Amgen Inc., and DaVita Inc. (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2017 on April 27, 2017 and incorporated herein by reference.)
10.36	Exclusive License and Collaboration Agreement, dated August 28, 2015, by and between Amgen Inc. and Novartis Pharma AG (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2017 on July 26, 2017 and incorporated herein by reference.)
10.37	Amendment No. 1 to the Exclusive License and Collaboration Agreement, dated April 21, 2017, by and between Amgen Inc. and Novartis Pharma AG (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2017 on July 26, 2017 and incorporated herein by reference.)
10.38	Amendment No. 2 to the Exclusive License and Collaboration Agreement, dated April 21, 2017, by and between Amgen Inc. and Novartis Pharma AG (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2017 on July 26, 2017 and incorporated herein by reference.)
10.39	Collaboration Agreement, dated April 21, 2017, by and between Amgen Inc. and Novartis Pharma AG (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2017 on July 26, 2017 and incorporated herein by reference.)
10.40	Amendment No. 1 to the Collaboration Agreement, dated March 20, 2018, by and between Novartis Pharma AG and Amgen Inc. (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2018 on April 25, 2018 and incorporated herein by reference.)
10.41*	Collaboration Agreement, dated October 31, 2019, by and between Amgen Inc. and BeiGene Switzerland GmbH, a wholly-owned subsidiary of BeiGene, Ltd. (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed).
10.42*	Guarantee, dated as of October 31, 2019, made by and among BeiGene, Ltd. and Amgen Inc.
10.43	Share Purchase Agreement, dated October 31, 2019, by and between Amgen Inc. and BeiGene, Ltd. (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed). (Filed as an exhibit to Schedule 13D on January 8, 2020 and incorporated herein by reference.)
10.44	Amendment No. 1 to Share Purchase Agreement, dated December 6, 2019, by and among BeiGene, Ltd. and Amgen Inc. (Filed as an exhibit to Schedule 13D on January 8, 2020 and incorporated herein by reference.)
21*	Subsidiaries of the Company.
23	Consent of the Independent Registered Public Accounting Firm. The consent is set forth on page 77 of this Annual Report on the 10-K.
24	Power of Attorney. The Power of Attorney is set forth on page 78 of this Annual Report on Form 10-K.
31*	Rule 13a-14(a) Certifications.
32**	Section 1350 Certifications.
101.INS	Inline XBRL Instance Document - the instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.

101.SCH*	Inline XBRL Taxonomy Extension Schema Document.
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

(* = filed herewith)
(** = furnished herewith and not "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended)
(+ = management contract or compensatory plan or arrangement)

Item 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMGEN INC.
(Registrant)

Date: February 12, 2020

By: /S/ PETER H. GRIFFITH

Peter H. Griffith
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- Registration Statement (Form S-3 No. 333-236351) of Amgen Inc.,
- Registration Statement (Form S-8 No. 333-159377) pertaining to the Amgen Inc. 2009 Equity Incentive Plan,
- Registration Statement (Form S-8 No. 33-39183) pertaining to the Amended and Restated Employee Stock Purchase Plan,
- Registration Statements (Form S-8 No. 33-39104, as amended by Form S-8 Nos. 333-144581 and 333-216719) pertaining to the Amended and Restated Amgen Retirement and Savings Plan (formerly known as the Amgen Retirement and Savings Plan),
- Registration Statements (Form S-8 Nos. 33-47605, 333-144580 and 333-216715) pertaining to the Retirement and Savings Plan for Amgen Manufacturing, Limited (formerly known as the Retirement and Savings Plan for Amgen Manufacturing, Inc.),
- Registration Statements (Form S-8 Nos. 333-81284, 333-177868 and 333-216723) pertaining to the Amgen Nonqualified Deferred Compensation Plan, and
- Registration Statement (Form S-8 No. 333-176240) pertaining to the Amgen Profit Sharing Plan for Employees in Ireland;

of our reports dated February 12, 2020, with respect to the consolidated financial statements and schedule of Amgen Inc. and the effectiveness of internal control over financial reporting of Amgen Inc. included in this Annual Report (Form 10-K) of Amgen Inc. for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Los Angeles, California
February 12, 2020

EXHIBIT 24

POWER OF ATTORNEY

KNOW ALL MEN AND WOMEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Peter H. Griffith, his or her attorney-in-fact, with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Report, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming that said attorney-in-fact, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/S/ ROBERT A. BRADWAY **Robert A. Bradway**	Chairman of the Board, Chief Executive Officer and President, and Director (Principal Executive Officer)	2/12/2020
/S/ PETER H. GRIFFITH **Peter H. Griffith**	Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	2/12/2020
/S/ WANDA M. AUSTIN **Wanda M. Austin**	Director	2/12/2020
/S/ BRIAN J. DRUKER **Brian J. Druker**	Director	2/12/2020
/S/ ROBERT A. ECKERT **Robert A. Eckert**	Director	2/12/2020
/S/ GREG C. GARLAND **Greg C. Garland**	Director	2/12/2020
/S/ FRED HASSAN **Fred Hassan**	Director	2/12/2020
/S/ REBECCA M. HENDERSON **Rebecca M. Henderson**	Director	2/12/2020
/S/ CHARLES M. HOLLEY, JR. **Charles M. Holley, Jr.**	Director	2/12/2020
/S/ TYLER JACKS **Tyler Jacks**	Director	2/12/2020
/S/ ELLEN J. KULLMAN **Ellen J. Kullman**	Director	2/12/2020
/S/ RONALD D. SUGAR **Ronald D. Sugar**	Director	2/12/2020
/S/ R. SANDERS WILLIAMS **R. Sanders Williams**	Director	2/12/2020

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Amgen Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Amgen Inc. (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15(a)2 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 12, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Sales deductions

Description of the Matter

As of December 31, 2019, the Company recorded accrued sales deductions of $3.9 billion. As described in Note 1 to the financial statements under the caption "Product sales and sales deductions," revenues from product sales are recognized net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions, (collectively sales deductions), which are established at the time of sale.

Auditing the estimation of sales deductions, which are netted against product sales, is complex, requires significant judgment, and the amounts involved are material to the financial statements taken as a whole. Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, and is based on an amount that reflects the consideration to which the Company expects to be entitled, which represents an amount that is net of accruals for estimated sales deductions. The estimated sales deductions are based on current contractual and statutory requirements, market events and trends, internal and external historical data, and forecasted customer buying patterns.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over the sales deduction processes. This included testing controls over management's review of significant assumptions and inputs used in the estimate of sales deductions, including actual sales, contractual terms, historical experience, wholesaler inventory levels, demand data and estimated patient population. We also tested management's controls over the accuracy of forecasting demand activity as well as the completeness and accuracy of all other components included in the final sales deduction estimates.

To test management's estimated sales deductions, we obtained management's calculations for the respective estimates and performed the following procedures, among others. We tested management's estimation process over the determination of sales discount accruals by developing an independent expectation of the estimated accrual rate, including a comparison of rates used in management's forecast to rates in the underlying contracts, performing a lookback analysis using actual historical data to evaluate the forecasted amounts, assessing subsequent events to determine whether there was any new information that would require adjustment to the initial accruals, evaluating trends in actual sales and discount accrual balances, comparing cash receipts to product sales, confirming terms and conditions for a sample of contracts with the Company's customers, testing a sample of credits issued and payments made throughout the year, and agreeing rates to underlying contract terms.

Unrecognized Tax Benefits

Description of the Matter

As discussed in Notes 1 and 6 to the consolidated financial statements, the Company operates in various jurisdictions in which differing interpretations of complex tax laws and regulations create uncertainty and necessitate the use of significant judgment in the determination of the Company's unrecognized tax benefits related to allocation of profits among various jurisdictions ("transfer pricing"), particularly in the U.S. federal tax jurisdiction where the Company has significant assets and operations. In this regard, the Company uses significant judgment in (1) determining whether a tax position's technical merits are more-likely-than-not to be sustained and (2) measuring the amount of tax benefit that qualifies for recognition. As of December 31, 2019, the Company accrued $3.3 billion of gross unrecognized tax benefits including transfer pricing. Auditing the assessment of the technical merits and measurement of the Company's unrecognized tax benefits is challenging because they can be complex, highly judgmental, and based on interpretations of tax laws and regulations.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over the Company's process to assess the technical merits of its tax positions, as well as management's process to measure the unrecognized tax benefits of those tax positions, particularly in regard to transfer pricing. This included testing controls over management's review of the inputs, calculations, assumptions and methods selected to measure the amount of tax benefits that qualify for recognition.

We involved tax and transfer pricing professionals to assist in assessing the technical merits and measurement of certain of the Company's unrecognized tax benefits. Depending on the nature of the specific tax position and, as applicable, developments with the relevant tax authorities, our procedures included obtaining and reviewing the Company's correspondence with such tax authorities and evaluating certain third-party advice to support the Company's evaluations and recorded positions. We used our knowledge of and experience with how the income tax laws and regulations related to transfer pricing are applied by the relevant tax authorities to evaluate the Company's accounting for its unrecognized tax benefits. We evaluated developments in the applicable regulatory environments to assess potential effects on the Company's recorded positions. We analyzed the assumptions and data used by the Company when it determined the amount of tax benefits to recognize, including applicable interest and penalties, and we tested the accuracy of those underlying calculations. We have also evaluated the Company's income tax disclosures included in Note 6 in relation to these matters.

We have served as the Company's auditor since 1980.
Los Angeles, California
February 12, 2020

AMGEN INC.

CONSOLIDATED STATEMENTS OF INCOME

Years ended December 31, 2019, 2018 and 2017

(In millions, except per-share data)

	2019	2018	2017
Revenues:			
Product sales	$ 22,204	$ 22,533	$ 21,795
Other revenues	1,158	1,214	1,054
Total revenues	23,362	23,747	22,849
Operating expenses:			
Cost of sales	4,356	4,101	4,069
Research and development	4,116	3,737	3,562
Selling, general and administrative	5,150	5,332	4,870
Other	66	314	375
Total operating expenses	13,688	13,484	12,876
Operating income	9,674	10,263	9,973
Interest expense, net	1,289	1,392	1,304
Interest and other income, net	753	674	928
Income before income taxes	9,138	9,545	9,597
Provision for income taxes	1,296	1,151	7,618
Net income	$ 7,842	$ 8,394	$ 1,979
Earnings per share:			
Basic	$ 12.96	$ 12.70	$ 2.71
Diluted	$ 12.88	$ 12.62	$ 2.69
Shares used in the calculation of earnings per share:			
Basic	605	661	731
Diluted	609	665	735

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Years ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Net income	$ 7,842	$ 8,394	$ 1,979
Other comprehensive income (loss), net of reclassification adjustments and taxes:			
(Losses) gains on foreign currency translation	(48)	(141)	81
(Losses) gains on cash flow hedges	(66)	247	(288)
Gains (losses) on available-for-sale securities	360	(185)	(6)
Other (losses) gains	(5)	(2)	5
Other comprehensive income (loss), net of taxes	241	(81)	(208)
Comprehensive income	$ 8,083	$ 8,313	$ 1,771

See accompanying notes.

AMGEN INC.

CONSOLIDATED BALANCE SHEETS

December 31, 2019 and 2018

(In millions, except per-share data)

	2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 6,037	$ 6,945
Marketable securities	2,874	22,359
Trade receivables, net	4,057	3,580
Inventories	3,584	2,940
Other current assets	1,888	1,794
Total current assets	18,440	37,618
Property, plant and equipment, net	4,928	4,958
Intangible assets, net	19,413	7,443
Goodwill	14,703	14,699
Other assets	2,223	1,698
Total assets	$ 59,707	$ 66,416
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,371	$ 1,207
Accrued liabilities	8,511	7,862
Current portion of long-term debt	2,953	4,419
Total current liabilities	12,835	13,488
Long-term debt	26,950	29,510
Long-term deferred tax liabilities	606	864
Long-term tax liabilities	8,037	8,770
Other noncurrent liabilities	1,606	1,284
Contingencies and commitments		
Stockholders' equity:		
Common stock and additional paid-in capital; $0.0001 par value per share; 2,750.0 shares authorized; outstanding—591.4 shares in 2019 and 629.6 shares in 2018	31,531	31,246
Accumulated deficit	(21,330)	(17,977)
Accumulated other comprehensive loss	(528)	(769)
Total stockholders' equity	9,673	12,500
Total liabilities and stockholders' equity	$ 59,707	$ 66,416

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Years ended December 31, 2019, 2018 and 2017

(In millions, except per-share data)

	Number of shares of common stock	Common stock and additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total
Balance as of December 31, 2016	738.2	$ 30,784	$ (438)	$ (471)	$ 29,875
Net income	—	—	1,979	—	1,979
Other comprehensive loss, net of taxes	—	—	—	(208)	(208)
Dividends declared on common stock ($4.77 per share)	—	—	(3,487)	—	(3,487)
Issuance of common stock in connection with the Company's equity award programs	2.5	52	—	—	52
Stock-based compensation expense	—	347	—	—	347
Tax impact related to employee stock-based compensation expense	—	(191)	—	—	(191)
Repurchases of common stock	(18.5)	—	(3,126)	—	(3,126)
Balance as of December 31, 2017	722.2	30,992	(5,072)	(679)	25,241
Cumulative effect of changes in accounting principles, net of taxes	—	—	38	(9)	29
Net income	—	—	8,394	—	8,394
Other comprehensive loss, net of taxes	—	—	—	(81)	(81)
Dividends declared on common stock ($5.41 per share)	—	—	(3,482)	—	(3,482)
Issuance of common stock in connection with the Company's equity award programs	1.9	56	—	—	56
Stock-based compensation expense	—	327	—	—	327
Tax impact related to employee stock-based compensation expense	—	(129)	—	—	(129)
Repurchases of common stock	(94.5)	—	(17,855)	—	(17,855)
Balance as of December 31, 2018	629.6	31,246	(17,977)	(769)	12,500
Net income	—	—	7,842	—	7,842
Other comprehensive income, net of taxes	—	—	—	241	241
Dividends declared on common stock ($5.95 per share)	—	—	(3,555)	—	(3,555)
Issuance of common stock in connection with the Company's equity award programs	2.0	97	—	—	97
Stock-based compensation expense	—	323	—	—	323
Tax impact related to employee stock-based compensation expense	—	(135)	—	—	(135)
Repurchases of common stock	(40.2)	—	(7,640)	—	(7,640)
Balance as of December 31, 2019	591.4	$ 31,531	$ (21,330)	$ (528)	$ 9,673

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Cash flows from operating activities:			
Net income	$ 7,842	$ 8,394	$ 1,979
Depreciation, amortization and other	2,206	1,946	1,955
Stock-based compensation expense	308	311	329
Deferred income taxes	(289)	(363)	(1,330)
Other items, net	(186)	386	334
Changes in operating assets and liabilities, net of acquisitions:			
Trade receivables, net	(504)	(378)	(58)
Inventories	(66)	(3)	133
Other assets	10	35	(24)
Accounts payable	164	(143)	424
Accrued income taxes, net	(585)	(361)	523
Long-term tax liabilities	(146)	258	6,681
Other liabilities	396	1,214	231
Net cash provided by operating activities	9,150	11,296	11,177
Cash flows from investing activities:			
Purchases of marketable securities	(9,394)	(18,741)	(33,607)
Proceeds from sales of marketable securities	8,842	28,356	24,240
Proceeds from maturities of marketable securities	20,548	5,412	6,174
Purchases of property, plant and equipment	(618)	(738)	(664)
Cash paid for acquisitions, net of cash acquired	(13,617)	195	(19)
Other	(52)	(145)	(148)
Net cash provided by (used in) investing activities	5,709	14,339	(4,024)
Cash flows from financing activities:			
Net proceeds from issuance of debt	—	—	4,476
Repayment of debt	(4,514)	(1,121)	(4,405)
Repurchases of common stock	(7,702)	(17,794)	(3,160)
Dividends paid	(3,509)	(3,507)	(3,365)
Withholding taxes arising from shares withheld for share-based payments	(137)	(126)	(191)
Other	95	58	51
Net cash used in financing activities	(15,767)	(22,490)	(6,594)
(Decrease) increase in cash and cash equivalents	(908)	3,145	559
Cash and cash equivalents at beginning of year	6,945	3,800	3,241
Cash and cash equivalents at end of year	$ 6,037	$ 6,945	$ 3,800

See accompanying notes.

1. Summary of significant accounting policies

Business

Amgen Inc. (including its subsidiaries, referred to as "Amgen," "the Company," "we," "our" or "us") is a global biotechnology pioneer that discovers, develops, manufactures and delivers innovative human therapeutics. We operate in one business segment: human therapeutics.

Principles of consolidation

The consolidated financial statements include the accounts of Amgen as well as its majority-owned subsidiaries. We do not have any significant interests in any variable interest entities. All material intercompany transactions and balances have been eliminated in consolidation.

Use of estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results may differ from those estimates.

Revenues

Product sales and sales deductions

Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, based on an amount that reflects the consideration to which we expect to be entitled, net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions (collectively, sales deductions) and returns established at the time of sale.

We analyze the adequacy of our accruals for sales deductions quarterly. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that an adjustment is appropriate. Accruals are also adjusted to reflect actual results. Accruals for sales deductions are based primarily on estimates of the amounts earned or to be claimed on the related sales. These estimates take into consideration current contractual and statutory requirements, specific known market events and trends, internal and external historical data and forecasted customer buying patterns. Sales deductions are substantially product specific and therefore, for any given period, can be affected by the mix of products sold. Included in sales deductions are immaterial net adjustments related to prior-period sales due to changes in estimates. Historically, such amounts have represented less than 1% of the aggregate sales deductions charged against product sales.

Returns are estimated through comparison of historical return data to their related sales on a production lot basis. Historical rates of return are determined for each product and are adjusted for known or expected changes in the marketplace specific to each product, when appropriate. Historically, sales return provisions have amounted to less than 1% of gross product sales. Changes in estimates for prior-period sales return provisions have historically been immaterial.

Our payment terms vary by types and locations of customers and the products or services offered. Payment terms differ by jurisdiction and customer, but payment is generally required in a term ranging from 30 to 120 days from date of shipment or satisfaction of the performance obligation. For certain products or services and certain customer types, we may require payment before products are delivered or services are rendered to customers.

Indirect taxes collected from customers and remitted to government authorities and that are related to sales of the Company's products, primarily in Europe, are excluded from revenues.

As a practical expedient, sales commissions are expensed when incurred because the amortization period would have been one year or less. These costs are recorded in Selling, general and administrative expense in the Consolidated Statements of Income.

Other revenues

Other revenues consist primarily of royalty income and corporate partner revenues. Royalties from licensees are based on third-party sales of licensed products and are recorded when the related third-party product sale occurs. Royalty estimates are based on historical and forecasted sales trends. Corporate partner revenues are composed mainly of license fees and milestones earned and our share of commercial profits generated from collaborations. See Arrangements with multiple-performance obligations, discussed below.

Arrangements with multiple-performance obligations

From time to time, we enter into arrangements for the research and development (R&D), manufacture and/or commercialization of products and product candidates. Such arrangements may require us to deliver various rights, services and/or goods, including intellectual property rights/licenses, R&D services, manufacturing services and/or commercialization services. The underlying terms of these arrangements generally provide for consideration to Amgen in the form of nonrefundable, upfront license fees; development and commercial performance milestone payments; royalty payments; and/or profit sharing.

In arrangements involving more than one performance obligation, each required performance obligation is evaluated to determine whether it qualifies as a distinct performance obligation based on whether (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available and (ii) the good or service is separately identifiable from other promises in the contract. The consideration under the arrangement is then allocated to each separate distinct performance obligation based on its respective relative stand-alone selling price. The estimated selling price of each deliverable reflects our best estimate of what the selling price would be if the deliverable was regularly sold by us on a stand-alone basis or by using an adjusted market assessment approach if selling price on a stand-alone basis is not available.

The consideration allocated to each distinct performance obligation is recognized as revenue when control of the related goods or services is transferred. Consideration associated with at-risk substantive performance milestones is recognized as revenue when it is probable that a significant reversal of the cumulative revenue recognized will not occur. We utilize the sales- and usage-based royalty exception in arrangements that resulted from the license of intellectual property, recognizing revenues generated from royalties or profit sharing as the underlying sales occur.

Research and development costs

R&D costs are expensed as incurred and include primarily salaries, benefits and other staff-related costs; facilities and overhead costs; clinical trial and related clinical manufacturing costs; contract services and other outside costs; information systems' costs; and amortization of acquired technology used in R&D with alternative future uses. R&D expenses also include costs and cost recoveries associated with third-party R&D arrangements, including upfront fees and milestones paid to third parties in connection with technologies that had not reached technological feasibility and did not have an alternative future use. Net payment or reimbursement of R&D costs is recognized when the obligations are incurred or as we become entitled to the cost recovery. See Note 8, Collaborations and Note 21, Subsequent events.

Selling, general and administrative costs

Selling, general and administrative (SG&A) costs are composed primarily of salaries, benefits and other staff-related costs associated with sales and marketing, finance, legal and other administrative personnel; facilities and overhead costs; outside marketing, advertising and legal expenses; the U.S. healthcare reform federal excise fee on Branded Prescription Pharmaceutical Manufacturers and Importers; and other general and administrative costs. Advertising costs are expensed as incurred and were $789 million, $674 million and $620 million during the years ended December 31, 2019, 2018 and 2017, respectively. SG&A expenses also include costs and cost recoveries associated with marketing and promotion efforts under certain collaborative arrangements. Net payment or reimbursement of SG&A costs is recognized when the obligations are incurred or we become entitled to the cost recovery. See Note 8, Collaborations.

Leases

Adoption of new lease standard

In February 2016, the Financial Accounting Standards Board (FASB) issued a new accounting standard that amends the guidance for the accounting and disclosure of leases. This new standard requires that lessees recognize the assets and liabilities that arise from leases on the balance sheet, including leases classified as operating leases, and that they disclose qualitative and quantitative information about leasing arrangements. The FASB subsequently issued additional amendments to address issues arising from the implementation of the new lease standard. We adopted this standard as of January 1, 2019, using the modified-retrospective method, which provides a method for recording existing leases at adoption. We used the adoption date as our date of initial application, and thus, comparative-period financial information is not presented for periods prior to the adoption date.

In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which, among other things, allowed us to carry forward the historical lease classification.

Adoption of the new standard resulted in total lease liabilities of$510 million and right-of-use (ROU) assets of$439 million as of January 1, 2019. The difference between the initial lease liabilities and the ROU assets is related primarily to previously existing lease liabilities. The standard did not materially impact our Consolidated Statements of Income and had no impact on our Consolidated Statements of Cash Flows. Our accounting policies under the new standard are described below. See Note 13, Leases.

Lease recognition

At inception of a contract, we determine whether an arrangement is or contains a lease. For all leases, we determine the classification as either operating or financing. Operating leases are included in Other assets, Accrued liabilities and Other noncurrent liabilities in our Consolidated Balance Sheets.

ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments under the lease. Lease recognition occurs at the commencement date, and lease liability amounts are based on the present value of lease payments made during the lease term. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Because most of our leases do not provide information to determine an implicit interest rate, we use our incremental borrowing rate in determining the present value of lease payments. ROU assets also include any lease payments made prior to the commencement date and exclude lease incentives received. Operating lease expense is recognized on a straight-line basis over the lease term.

We have lease agreements with both lease and nonlease components, which are generally accounted for together as a single lease component. In addition, for certain vehicle and equipment leases, we apply a portfolio approach to determine the lease term and discount rate.

Stock-based compensation

We have stock-based compensation plans under which various types of equity-based awards are granted, including restricted stock units (RSUs), performance units and stock options. The fair values of RSUs and stock option awards, which are subject only to service conditions with graded vesting, are recognized as compensation expense, generally on a straight-line basis over the service period, net of estimated forfeitures. The fair values of performance unit awards are recognized as compensation expense, generally on a straight-line basis from the grant date to the end of the performance period. See Note 4, Stock-based compensation.

Income taxes

We provide for income taxes based on pretax income and applicable tax rates in the various jurisdictions in which we operate. Significant judgment is required in determining our provision for income taxes and income tax assets and liabilities, including evaluating uncertainties in the application of accounting principles and complex tax laws. Deferred income taxes are recorded for the expected tax consequences of temporary differences between the bases of assets and liabilities, as well as for loss and tax credit carryforwards for financial reporting purposes and amounts recognized for income tax purposes. We record a valuation allowance to reduce our deferred tax assets to the amount of future tax benefit that is more likely than not to be realized.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by tax authorities based on the technical merits of the position. The tax benefit recognized in the consolidated financial statements for a particular tax position is based on the largest benefit that is more likely than not to be realized. The amount of unrecognized tax benefits (UTBs) is adjusted as appropriate for changes in facts and circumstances, such as significant amendments to existing tax law, new regulations or interpretations by tax authorities, new information obtained during a tax examination or resolution of an examination. We recognize both accrued interest and penalties, where appropriate, related to UTBs in income tax expense. See Note 6, Income taxes.

Acquisitions

We first determine whether a set of assets acquired constitute a business and should be accounted for as a business combination. If the assets acquired are not a business, we account for the transaction as an asset acquisition. Business combinations are accounted for by using the acquisition method of accounting. Under the acquisition method, assets acquired, including in-process research and development (IPR&D) projects, and liabilities assumed are recorded at their respective fair values as of the acquisition date in our consolidated financial statements. The excess of the fair value of consideration transferred over the fair value of the net assets acquired is recorded as goodwill. Contingent consideration obligations incurred in connection with a business combination (including the assumption of an acquiree's liability arising from an acquisition it consummated prior to our acquisition) are recorded at their fair values on the acquisition date and remeasured at their fair values each subsequent reporting period until the related contingencies are resolved. The resulting changes in fair values are recorded in earnings. In contrast, asset acquisitions are accounted for using a cost accumulation and allocation model. Under this model, the cost of the acquisition is allocated to the assets acquired

and liabilities assumed. Contingent consideration obligations incurred in connection with an asset acquisition are recorded when it is probable that they will occur and they can be reasonably estimated. See Note 2, Acquisitions, and Note 17, Fair value measurement.

Cash equivalents

We consider cash equivalents to be only those investments that are highly liquid, readily convertible to cash and which mature within three months from the date of purchase.

Interest-bearing securities

We consider our interest-bearing securities investment portfolio available-for-sale, and accordingly, these investments are recorded at fair value, with unrealized gains and losses recorded in Accumulated other comprehensive income (loss) (AOCI). Investments with maturities beyond one year may be classified as short-term marketable securities in the Consolidated Balance Sheets due to their highly liquid nature and because they represent the Company's investments that are available for current operations. See Note 9, Investments, and Note 17, Fair value measurement.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost, which includes amounts related to materials, labor and overhead, is determined in a manner that approximates the first-in, first-out method. Net realizable value is the estimated selling price in the ordinary course of business less reasonably predictable costs of completion, disposal and transportation. See Note 10, Inventories.

Derivatives

We recognize all of our derivative instruments as either assets or liabilities at fair value in the Consolidated Balance Sheets. The accounting for changes in the fair value of a derivative instrument depends on whether the derivative has been formally designated and qualifies as part of a hedging relationship under the applicable accounting standards and, further, on the type of hedging relationship. For derivatives formally designated as hedges, we assess both at inception and quarterly thereafter whether the hedging derivatives are highly effective in offsetting changes in either the fair value or cash flows of the hedged item. Our derivatives that are not designated and do not qualify as hedges are adjusted to fair value through current earnings. See Note 17, Fair value measurement, and Note 18, Derivative instruments.

Property, plant and equipment, net

Property, plant and equipment is recorded at historical cost, net of accumulated depreciation, amortization and, if applicable, impairment charges. We review our property, plant and equipment assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Depreciation is provided over the assets' useful lives on a straight-line basis. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or lease terms. See Note 11, Property, plant and equipment.

Goodwill and other intangible assets

Finite-lived intangible assets are recorded at cost, net of accumulated amortization, and, if applicable, impairment charges. Amortization of finite-lived intangible assets is provided over their estimated useful lives on a straight-line basis or based on the pattern in which economic benefits are consumed, if reliably determinable. We review our finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. See Note 12, Goodwill and other intangible assets.

The fair values of IPR&D projects acquired in a business combination that are not complete are capitalized and accounted for as indefinite-lived intangible assets until completion or abandonment of the related R&D efforts. Upon successful completion of the project, the capitalized amount is amortized over its estimated useful life. If a project is abandoned, all remaining capitalized amounts are written off immediately. There are often major risks and uncertainties associated with IPR&D projects as we are required to obtain regulatory approvals in order to be able to market the resulting products. Such approvals require completing clinical trials that demonstrate a product candidate is safe and effective. Consequently, the eventual realized value of the acquired IPR&D project may vary from its fair value at the date of acquisition, and IPR&D impairment charges may occur in future periods.

Capitalized IPR&D projects are tested for impairment annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We consider various factors for potential impairment, including the current legal and regulatory environment and the competitive landscape. Adverse clinical trial results, significant delays in obtaining marketing approval, the inability to bring a product to market and the introduction or advancement of competitors' products could result in partial or full impairment of the related intangible assets.

We perform an impairment test of goodwill annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. To date, an impairment of goodwill has not been recorded. See Note 12, Goodwill and other intangible assets.

Contingencies

In the ordinary course of business, we are involved in various legal proceedings, government investigations and other matters that are complex in nature and have outcomes that are difficult to predict. Certain of these proceedings are discussed in Note 19, Contingencies and commitments. We record accruals for loss contingencies to the extent that we conclude that it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. We evaluate, on a quarterly basis, developments in legal proceedings and other matters that could cause an increase or decrease in the amount of the liability that has been accrued previously.

Foreign currency translation

The net assets of international subsidiaries whose local currencies have been determined to be the functional currencies are translated into U.S. dollars using current exchange rates. The U.S. dollar effects that arise from translating net assets of these subsidiaries at changing rates are recognized in AOCI. The subsidiaries' earnings are translated into U.S. dollars using average exchange rates.

Other recent accounting pronouncements

In June 2016, the FASB issued a new accounting standard that amends the guidance for measuring and recording credit losses on financial assets measured at amortized cost by replacing the incurred-loss model with an expected-loss model. Accordingly, these financial assets will be presented at the net amount expected to be collected. This new standard also requires that credit losses related to available-for-sale debt securities be recorded as an allowance through net income rather than reducing the carrying amount under the current, other-than-temporary-impairment model. The new standard is effective for interim and annual periods beginning on January 1, 2020. With certain exceptions, adjustments are to be applied using a modified-retrospective approach by reflecting adjustments through a cumulative-effect impact on retained earnings as of the beginning of the fiscal year of adoption. We have substantially completed our impact assessment and do not currently anticipate a material impact on our consolidated financial statements.

2. Acquisitions

Otezla® (apremilast)

On November 21, 2019, we acquired worldwide rights to Otezla®, the only oral, non-biologic treatment for psoriasis and psoriatic arthritis, along with certain related assets and liabilities, from Celgene Corporation (Celgene). Otezla® is used primarily for the treatment of patients with moderate-to-severe plaque psoriasis for whom phototherapy or systemic therapy is appropriate and is approved in more than 50 markets outside the United States, including the European Union and Japan. The acquisition was accounted for as an asset acquisition under GAAP because substantially all the value of the assets acquired was concentrated in the global intellectual property rights of Otezla®. Otezla®'s operations have been included in our consolidated financial statements commencing on the acquisition date.

The following table summarizes the consideration transferred and the allocation of the estimated accumulated cost, including tax adjustments, to the assets acquired and liabilities assumed (in millions):

		Amounts
Cash purchase price	$	13,400
Transaction costs		40
Accumulated cost (consideration transferred)	$	13,440
Intangible assets:		
Developed-product-technology rights	$	13,007
Marketing-related rights		195
Inventory		367
Deferred tax liability, net		(24)
Deferred credit		(96)
Other liabilities, net		(9)
Total assets acquired, net	$	13,440

Amgen allocated the accumulated cost of the acquisition to the assets acquired based on their relative fair values. The accumulated cost of the acquisition includes direct acquisition-related costs and applicable taxes. Goodwill is not recognized in the accounting for an asset acquisition. Rather, the excess of the accumulated cost over the fair value of the net assets acquired is reallocated to the nonfinancial assets acquired.

The developed-product-technology rights acquired relate to Otezla®. The estimated fair value was determined by using a multi-period excess earnings income approach, which is based on the present value of the incremental after-tax cash flows attributable only to the intangible asset. The developed-product-technology rights will be amortized over a weighted-average period of 8.5 years by using the straight-line method.

The estimated fair value of marketing-related rights, which relate to assembled workforce, was determined using a replacement cost approach, which consists of developing an estimate of the current cost of a similar new asset having the nearest equivalent utility to the asset being valued. The assembled workforce will be amortized over a period of 5 years by using the straight-line method.

The estimated fair value of the acquired inventory was determined using the comparative sales method, which uses actual or expected selling prices of inventory as the base amount to which adjustments for selling effort and a profit on the buyer's effort are applied. Inventory fair value adjustments will be amortized as inventory turns over, which we estimate to approximate 2.5 years.

Nuevolution AB

On July 15, 2019, we acquired all of the outstanding stock of Nuevolution AB (Nuevolution), a publicly traded, Denmark-based biotechnology company with a leading small molecule drug discovery platform, for total consideration of $183 million in cash. The transaction, which was accounted for as a business combination, expands our ability to discover novel small molecules against difficult-to-drug targets and with greater speed and efficiency. Nuevolution's operations, which are not material, have been included in our consolidated financial statements commencing on the acquisition date.

We allocated the consideration to acquire Nuevolution to finite-lived intangible assets of $150 million, comprised primarily of technology rights for a drug discovery platform with an estimated useful life of 10 years; goodwill of $26 million, which is not tax deductible; deferred tax liabilities of $22 million; and other net assets of $29 million.

The estimated fair values of intangible assets were determined primarily by using a probability-weighted-income approach, which discounts expected future cash flows to present value by using a discount rate that represents the estimated rate that market participants would use to value the intangible assets.

Our accounting for this acquisition is preliminary and will be finalized upon completion of our analysis to determine the acquisition date fair values of certain assets acquired, tax-related items and the residual impact on goodwill.

Kirin-Amgen, Inc.

During the first quarter of 2018, we acquired the remaining 50% ownership of Kirin-Amgen, Inc. (K-A), from Kirin Holdings Company, Limited (Kirin), making K-A a wholly owned subsidiary of Amgen. Upon its acquisition, K-A's operations have been included in our consolidated financial statements commencing on the share acquisition date. The acquisition relieved Amgen of future royalty obligations to K-A.

Prior to the share acquisition date, we owned 50% of K-A and accounted for our interest in K-A by using the equity method of accounting.

The transaction was accounted for as a step acquisition of a business in which we were required to remeasure our existing 50% ownership interest at fair value. In addition, we were required to effectively settle our preexisting relationship with K-A, which resulted in a loss. Together the gain on the remeasurement of our existing ownership interest and the loss from the settlement of the preexisting relationship resulted in a net gain of $80 million, which was recorded in Interest and other income, net, in the Consolidated Statements of Income.

The primary means of consideration for this transaction was a payment of $780 million in cash. The aggregate share acquisition date consideration to acquire the remaining 50% ownership in K-A and the fair value of Amgen's preacquisition investment consisted of the following (in millions):

	Amounts
Total cash paid to Kirin	$ 780
Fair value of contingent consideration obligation	45
Loss on settlement of preexisting relationship	(168)
Total consideration transferred to acquire K-A	657
Fair value of Amgen's investment in K-A	825
Total acquisition date fair value	$ 1,482

In connection with this acquisition, we are obligated to make single-digit royalty payments to Kirin contingent upon sales of brodalumab. The estimated fair value of this contingent consideration obligation was $45 million as of the share acquisition date.

The fair values of assets acquired and liabilities assumed consisted of cash of $977 million, licensing rights of $470 million, deferred tax liabilities of $102 million, other assets and liabilities of $131 million and goodwill of $6 million. The estimated fair value of acquired licensing rights was determined by using a probability-related-income approach, which is based on the present value of the incremental after-tax cash flows attributable only to the intangible asset. The projected cash flows were based on certain assumptions, including estimates of future revenues and expenses and the time and resources needed to maintain the assets through commercialization. The licensing rights will be amortized over a weighted-average period of four years by using the straight-line method. The excess of the share acquisition date consideration over the fair values assigned to the assets acquired and the liabilities assumed of $6 million was recorded as goodwill, which is not deductible for tax purposes. The $131 million in other assets and liabilities represents primarily receivables for royalties earned by K-A but not yet received, offset partially by payables representing R&D expenses incurred but not yet reimbursed by K-A.

Pro forma results of operations for this acquisition have not been presented because this acquisition was not material to our consolidated results of operations.

3. Revenues

We operate in one business segment: human therapeutics. Therefore, results of our operations are reported on a consolidated basis for purposes of segment reporting, consistent with internal management reporting. Revenues by product and by geographic area, based on customers' locations, are presented below. Rest-of-world (ROW) revenues relate to products that are sold primarily in Europe.

Revenues were as follows (in millions):

	Year ended December 31, 2019		
	U.S.	ROW	Total
Enbrel® (etanercept)	$ 5,050	$ 176	$ 5,226
Neulasta® (pegfilgrastim)	2,814	407	3,221
Prolia® (denosumab)	1,772	900	2,672
XGEVA® (denosumab)	1,457	478	1,935
Aranesp® (darbepoetin alfa)	758	971	1,729
KYPROLIS® (carfilzomib)	654	390	1,044
EPOGEN® (epoetin alfa)	867	—	867
Sensipar®/Mimpara® (cinacalcet)	252	299	551
Other products	2,907	2,052	4,959
Total product sales[1]	16,531	5,673	22,204
Other revenues	693	465	1,158
Total revenues	$ 17,224	$ 6,138	$ 23,362

	Year ended December 31, 2018		
	U.S.	ROW	Total
ENBREL	$ 4,807	$ 207	$ 5,014
Neulasta®	3,866	609	4,475
Prolia®	1,500	791	2,291
Aranesp®	942	935	1,877
XGEVA®	1,338	448	1,786
Sensipar®/Mimpara®	1,436	338	1,774
EPOGEN®	1,010	—	1,010
KYPROLIS®	583	385	968
Other products	1,947	1,391	3,338
Total product sales[1]	17,429	5,104	22,533
Other revenues	929	285	1,214
Total revenues	$ 18,358	$ 5,389	$ 23,747

	Year ended December 31, 2017		
	U.S.	ROW	Total
ENBREL	$ 5,206	$ 227	$ 5,433
Neulasta®	3,931	603	4,534
Aranesp®	1,114	939	2,053
Prolia®	1,272	696	1,968
Sensipar®/Mimpara®	1,374	344	1,718
XGEVA®	1,157	418	1,575
EPOGEN®	1,096	—	1,096
KYPROLIS®	562	273	835
Other products	1,419	1,164	2,583
Total product sales[1]	17,131	4,664	21,795
Other revenues	898	156	1,054
Total revenues	$ 18,029	$ 4,820	$ 22,849

(1) Hedging gains and losses, which are included in product sales, were not material for the years ended December 31, 2019, 2018 and 2017.

In the United States, we sell primarily to pharmaceutical wholesale distributors that we utilize as the principal means of distributing our products to healthcare providers. Outside the United States, we sell principally to healthcare providers and/or pharmaceutical wholesale distributors depending on the distribution practice in each country. We monitor the financial condition of our larger customers and limit our credit exposure by setting credit limits and, in certain circumstances, by requiring letters of credit or obtaining credit insurance.

We had product sales to three customers, each of them accounting for more than 10% of total revenues for each of the years ended December 31, 2019, 2018 and 2017. For the year ended December 31, 2019, on a combined basis, these customers accounted for 81% of total gross revenues as shown in the following table. Certain information with respect to these customers was as follows (dollar amounts in millions):

	Years ended December 31,		
	2019	2018	2017
AmerisourceBergen Corporation:			
Gross product sales	$ 12,301	$ 12,091	$ 10,742
% of total gross revenues	33%	33%	31%
McKesson Corporation:			
Gross product sales	$ 11,795	$ 11,434	10,625
% of total gross revenues	31%	31%	30%
Cardinal Health, Inc.:			
Gross product sales	$ 6,538	$ 7,475	$ 7,049
% of total gross revenues	17%	20%	20%

As of December 31, 2019 and 2018, amounts due from these three customers each exceeded 10% of gross trade receivables and accounted for 73% and 76%, respectively, of net trade receivables on a combined basis. As of December 31, 2019 and 2018, 27% and 23%, respectively, of trade receivables, net, were due from customers located outside the United States, the majority of which were from Europe. Our total allowance for doubtful accounts as of December 31, 2019 and 2018 was not material.

4. Stock-based compensation

Our Amended and Restated 2009 Equity Incentive Plan (the Amended 2009 Plan) authorizes for issuance to employees of Amgen, employees of Amgen subsidiaries and nonemployee members of our Board of Directors shares of our common stock pursuant to grants of equity-based awards, including RSUs, stock options and performance units. The pool of shares available under the Amended 2009 Plan is reduced by one share for each stock option granted and by 1.9 shares for other types of awards granted, including RSUs and performance units (full-value awards). In general, if any shares subject to an award granted under the Amended 2009 Plan expire or become forfeited, terminated or canceled without the issuance of shares, the shares subject to such awards are added back into the authorized pool on the same basis that they were removed. In addition, under the Amended 2009 Plan, shares withheld to pay for minimum statutory tax obligations with respect to full-value awards are added back into the authorized pool on the basis of 1.9 shares. As of December 31, 2019, the Amended 2009 Plan provides for future grants and/or issuances of up to 28 million shares of our common stock. Stock-based awards under our employee compensation plans are made with newly issued shares reserved for this purpose.

The following table reflects the components of stock-based compensation expense recognized in our Consolidated Statements of Income (in millions):

	Years ended December 31,		
	2019	2018	2017
RSUs	$ 168	$ 165	$ 174
Performance units	105	117	133
Stock options	35	29	22
Total stock-based compensation expense, pretax	308	311	329
Tax benefit from stock-based compensation expense	(67)	(67)	(118)
Total stock-based compensation expense, net of tax	$ 241	$ 244	$ 211

Restricted stock units and stock options

Eligible employees generally receive an annual grant of RSUs and, for certain executive-level employees, stock options, with the size and type of award generally determined by the employee's salary grade and performance level. Certain management and professional-level employees typically receive RSU grants upon commencement of employment. Nonemployee members of our Board of Directors also receive an annual grant of RSUs.

Our RSU and stock option grants provide for accelerated or continued vesting in certain circumstances as defined in the plans and related grant agreements, including upon death, disability, termination in connection with a change in control and the retirement of employees who meet certain service and/or age requirements. RSUs and stock options generally vest in equal amounts on the second, third and fourth anniversaries of the grant date. RSUs accrue dividend equivalents, which are typically payable in shares, only when and to the extent the underlying RSUs vest and are issued to the recipient.

Restricted stock units

The grant date fair value of an RSU equals the closing price of our common stock on the grant date, as RSUs accrue dividend equivalents during their vesting period. The weighted-average grant date fair values of RSUs granted during the years ended December 31, 2019, 2018 and 2017, were $182.12, $179.18 and $163.99, respectively.

The following table summarizes information regarding our RSUs:

	Year ended December 31, 2019	
	Units (in millions)	Weighted-average grant date fair value
Balance nonvested as of December 31, 2018	3.1	$ 168.11
Granted	1.2	$ 182.12
Vested	(1.0)	$ 163.21
Forfeited	(0.2)	$ 170.52
Balance nonvested as of December 31, 2019	3.1	$ 174.97

The total grant date fair values of RSUs that vested during the years ended December 31, 2019, 2018 and 2017, were $160 million, $167 million and $182 million, respectively.

Stock options

The exercise price of stock options is set as the closing price of our common stock on the grant date, and the related number of shares granted is fixed at that point in time. Awards expire 10 years from the date of grant. We use the Black–Scholes option valuation model to estimate the grant date fair value of stock options.

The weighted-average assumptions used in the option valuation model and the resulting weighted-average grant date fair values of stock options granted were as follows:

	Years ended December 31,		
	2019	2018	2017
Closing price of our common stock on grant date	$ 177.31	$ 177.46	$ 162.60
Expected volatility (average of implied and historical volatility)	23.5%	24.6%	22.7%
Expected life (in years)	5.8	5.8	5.8
Risk-free interest rate	2.4%	2.8%	2.1%
Expected dividend yield	3.1%	2.9%	2.8%
Fair value of stock options granted	$ 30.47	$ 34.60	$ 27.54

The following table summarizes information regarding our stock options:

	Year ended December 31, 2019			
	Options (in millions)	Weighted-average exercise price	Weighted-average remaining contractual life (in years)	Aggregate intrinsic value (in millions)
Balance unexercised as of December 31, 2018	4.4	$ 143.57		
Granted	1.4	$ 177.31		
Exercised	(0.7)	$ 107.13		
Expired/forfeited	(0.3)	$ 171.01		
Balance unexercised as of December 31, 2019	4.8	$ 157.00	7.2	$ 406
Vested or expected to vest as of December 31, 2019	4.6	$ 156.02	7.1	$ 390
Exercisable as of December 31, 2019	1.3	$ 117.13	4.3	$ 162

The total intrinsic values of options exercised during the years ended December 31, 2019, 2018 and 2017, were $68 million, $53 million and $60 million, respectively. The actual tax benefits realized from tax deductions from option exercises during the years ended December 31, 2019, 2018 and 2017, were $15 million, $12 million and $21 million, respectively.

As of December 31, 2019, $308 million of unrecognized compensation cost was related to nonvested restricted stock units and unvested stock options, which is expected to be recognized over a weighted-average period of 1.8 years.

Performance units

Certain management-level employees also receive annual grants of performance units, which give the recipient the right to receive common stock that is contingent upon achievement of specified preestablished goals over the performance period, which is generally three years. The performance goals for the units granted during the years ended December 31, 2019, 2018 and 2017, which are accounted for as equity awards, are based on (i) Amgen's stockholder return compared with a comparator group of companies, which are considered market conditions and are therefore reflected in the grant date fair values of the units, and (ii) Amgen's stand-alone financial performance measures, which are considered performance conditions. The expense recognized for awards is based on the grant date fair value of a unit multiplied by the number of units expected to be earned with respect to the related performance conditions, net of estimated forfeitures. Depending on the outcome of these performance goals, a recipient may ultimately earn a number of units greater or less than the number of units granted. Shares of our common stock are issued on a one-for-one basis for each performance unit earned. In general, performance unit awards vest at the end of the performance period. The performance award program provides for accelerated or continued vesting in certain circumstances as defined in the plan, including upon death, disability, a change in control and retirement of employees who meet certain service and/or age

requirements. Performance units accrue dividend equivalents that are typically payable in shares only when and to the extent the underlying performance units vest and are issued to the recipient, including with respect to market and performance conditions that affect the number of performance units earned.

We use a payout simulation model to estimate the grant date fair value of performance units.The weighted-average assumptions used in the payout simulation model and the resulting weighted-average grant date fair values of performance units granted were as follows:

	Years ended December 31,		
	2019	2018	2017
Closing price of our common stock on grant date	$ 177.31	$ 177.93	$ 162.60
Volatility	22.1%	23.8%	25.9%
Risk-free interest rate	2.3%	2.6%	1.4%
Fair value of units granted	$ 188.40	$ 189.21	$ 178.87

The payout simulation model assumes correlations of returns of the stock prices of our common stock and the common stocks of the comparator groups of companies and stock price volatilities of the comparator groups of companies to simulate stockholder returns over the performance periods and their resulting impact on the payout percentages based on the contractual terms of the performance units.

As of December 31, 2019 and 2018, 2.0 million and 2.0 million performance units were outstanding with weighted-average grant date fair values of $185.64 and $180.12 per unit, respectively. During the year ended December 31, 2019, 0.8 million performance units with a weighted-average grant date fair value of $188.40 were granted, and 0.2 million performance units with a weighted-average grant date fair value of $186.66 were forfeited.

The total fair values of performance units paid during the years ended December 31, 2019, 2018 and 2017 were $176 million, $133 million and $219 million, respectively, based on the number of performance units earned multiplied by the closing stock price of our common stock on the last day of the performance period.

As of December 31, 2019, $113 million of unrecognized compensation cost was related to nonvested performance units, which is expected to be recognized over a weighted-average period of one year.

5. Defined contribution plan

The Company has defined contribution plans to which certain employees of the Company and participating subsidiaries may defer compensation for income tax purposes. Participants are eligible to receive matching contributions based on their contributions, in addition to other Company contributions. Defined contribution plan expenses were $220 million, $173 million and $196 million for the years ended December 31, 2019, 2018 and 2017, respectively.

6. Income taxes

Income before income taxes included the following (in millions):

	Years ended December 31,		
	2019	2018	2017
Domestic	$ 4,371	$ 4,856	$ 4,436
Foreign	4,767	4,689	5,161
Total income before income taxes	$ 9,138	$ 9,545	$ 9,597

The provision for income taxes included the following (in millions):

	Years ended December 31,		
	2019	2018	2017
Current provision:			
Federal	$ 1,284	$ 1,270	$ 8,615
State	39	17	5
Foreign	277	227	275
Total current provision	1,600	1,514	8,895
Deferred (benefit) provision:			
Federal	(276)	(317)	(1,120)
State	(22)	(7)	—
Foreign	(6)	(39)	(157)
Total deferred (benefit) provision	(304)	(363)	(1,277)
Total provision for income taxes	$ 1,296	$ 1,151	$ 7,618

Deferred income taxes reflect the tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, tax credit carryforwards and the tax effects of net operating loss (NOL) carryforwards. Significant components of our deferred tax assets and liabilities were as follows (in millions):

	December 31,	
	2019	2018
Deferred income tax assets:		
NOL and credit carryforwards	$ 800	$ 810
Accrued expenses	457	428
Expenses capitalized for tax	170	185
Stock-based compensation	91	95
Other	269	174
Total deferred income tax assets	1,787	1,692
Valuation allowance	(517)	(509)
Net deferred income tax assets	1,270	1,183
Deferred income tax liabilities:		
Acquired intangible assets	(1,288)	(1,509)
Debt	(210)	(184)
Other	(286)	(267)
Total deferred income tax liabilities	(1,784)	(1,960)
Total deferred income taxes, net	$ (514)	$ (777)

Valuation allowances are provided to reduce the amounts of our deferred tax assets to an amount that is more likely than not to be realized based on an assessment of positive and negative evidence, including estimates of future taxable income necessary to realize future deductible amounts.

The valuation allowance increased in 2019 due primarily to the Company's expectation that some state R&D credits will not be utilized.

As of December 31, 2019, we had $20 million of federal tax credit carryforwards available to reduce future federal income taxes and have provided no valuation allowance for those federal tax credit carryforwards. The federal tax credit carryforwards expire between 2023 and 2035. We had $605 million of state tax credit carryforwards available to reduce future state income taxes and have provided a valuation allowance for $482 million of those state tax credit carryforwards. A portion of the state credits for which no valuation allowance has been provided will expire between 2022 and 2034.

As of December 31, 2019, we had $144 million of federal NOL carryforwards available to reduce future federal income taxes and have provided a valuation allowance for $6 million of those federal NOL carryforwards. The federal NOL carryforwards, for which no valuation allowance has been provided, expire between 2020 and 2035. We had $196 million of state NOL carryforwards available to reduce future state income taxes and have provided a valuation allowance for $196 million of those state NOL carryforwards. We had $2.0 billion of foreign NOL carryforwards available to reduce future foreign income taxes and have provided a valuation allowance for $516 million of those foreign NOL carryforwards. For the foreign NOLs with no valuation allowance provided, $822 million has no expiry; and the remainder will expire between 2020 and 2024.

The reconciliations of the total gross amounts of UTBs were as follows (in millions):

	Years ended December 31,		
	2019	2018	2017
Beginning balance	$ 3,061	$ 2,953	$ 2,543
Additions based on tax positions related to the current year	215	173	447
Additions based on tax positions related to prior years	22	13	1
Reductions for tax positions of prior years	(11)	(17)	(5)
Reductions for expiration of statute of limitations	—	—	(5)
Settlements	—	(61)	(28)
Ending balance	$ 3,287	$ 3,061	$ 2,953

Substantially all of the UTBs as of December 31, 2019, if recognized, would affect our effective tax rate.

Interest and penalties related to UTBs are included in our provision for income taxes. During the years ended December 31, 2019, 2018 and 2017, we recognized $198 million, $137 million and $56 million, respectively, of interest and penalties through the income tax provision in the Consolidated Statements of Income. As of December 31, 2019 and 2018, accrued interest and penalties associated with UTBs were $667 million and $469 million, respectively.

The reconciliations between the federal statutory tax rate applied to income before income taxes and our effective tax rate were as follows:

	Years ended December 31,		
	2019	2018	2017
Federal statutory tax rate	21.0 %	21.0 %	35.0 %
2017 Tax Act, net repatriation tax	— %	— %	70.7 %
Foreign earnings	(4.5)%	(4.3)%	(15.8)%
2017 Tax Act, net deferred tax remeasurement	— %	— %	(6.9)%
Credits, Puerto Rico Excise Tax	(2.6)%	(2.5)%	(2.2)%
2017 Tax Act, net impact on intercompany sales	— %	(1.8)%	— %
Interest on uncertain tax positions	1.6 %	1.2 %	0.6 %
Credits, primarily federal R&D	(1.0)%	(0.8)%	(0.6)%
Share-based payments	(0.3)%	(0.2)%	(0.7)%
Other, net	— %	(0.5)%	(0.7)%
Effective tax rate	14.2 %	12.1 %	79.4 %

The effective tax rates for the years ended December 31, 2019 and 2018 differ from the federal statutory rate due primarily to impacts of the jurisdictional mix of income and expenses. The effective tax rate for 2017 differs from the federal statutory rate primarily as a result of the Tax Cuts and Jobs Act (the 2017 Tax Act). Primarily all of the benefit to our effective tax rate from foreign earnings results from the Company's operations conducted in Puerto Rico, a territory of the United States that is treated as a foreign jurisdiction for U.S. tax purposes and are subject to tax incentive grants through 2035. Additionally, the Company's operations conducted in Singapore is subject to a tax incentive grant through 2034. These earnings are also subject to U.S. tax at a reduced rate of 10.5%.

The U.S. territory of Puerto Rico imposes an excise tax on the gross intercompany purchase price of goods and services from our manufacturer in Puerto Rico. The rate of 4% is effective through December 31, 2027. We account for the excise tax as a manufacturing cost that is capitalized in inventory and expensed in cost of sales when the related products are sold. For U.S. income tax purposes, the excise tax results in foreign tax credits that are generally recognized in our provision for income taxes when the excise tax is incurred.

Income taxes paid during the years ended December 31, 2019, 2018 and 2017, were $1.9 billion, $1.9 billion and $1.5 billion, respectively.

One or more of our legal entities file income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and certain foreign jurisdictions. Our income tax returns are routinely examined by tax authorities in those jurisdictions. Significant disputes may arise with tax authorities involving issues regarding the timing and amount of deductions, the use of tax credits and allocations of income and expenses among various tax jurisdictions because of differing interpretations of tax laws, regulations and relevant facts. As previously disclosed, we received a Revenue Agent Report (RAR) from the Internal Revenue Service (IRS) for the years 2010, 2011 and 2012. The RAR proposes to make significant adjustments that relate primarily to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. In November 2017, we received a modified RAR that revised the IRS's calculation but continued to propose substantial adjustments. We disagree with the proposed adjustments and are pursuing resolution with the IRS administrative appeals office, which currently has jurisdiction over the matter. If we deem necessary, we will vigorously contest the proposed adjustments through the judicial process. Final resolution of this complex matter is not likely within the next 12 months and could have a material impact on our consolidated financial statements. We believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes, the ultimate resolution of any tax matters may result in payments substantially greater or less than amounts accrued. We are no longer subject to U.S. federal income tax examinations for years ended on or before December 31, 2009. In addition, we are currently under examination by a number of state and foreign tax jurisdictions.

7. Earnings per share

The computation of basic earnings per share (EPS) is based on the weighted-average number of our common shares outstanding. The computation of diluted EPS is based on the weighted-average number of our common shares outstanding and dilutive potential common shares, which include primarily shares that may be issued under our stock option, restricted stock and performance unit award programs (collectively, dilutive securities), as determined by using the treasury stock method.

The computations for basic and diluted EPS were as follows (in millions, except per-share data):

	Years ended December 31,		
	2019	2018	2017
Income (Numerator):			
Net income for basic and diluted EPS	$ 7,842	$ 8,394	$ 1,979
Shares (Denominator):			
Weighted-average shares for basic EPS	605	661	731
Effect of dilutive securities	4	4	4
Weighted-average shares for diluted EPS	609	665	735
Basic EPS	$ 12.96	$ 12.70	$ 2.71
Diluted EPS	$ 12.88	$ 12.62	$ 2.69

For each of the three years ended December 31, 2019, the number of antidilutive employee stock-based awards excluded from the computation of diluted EPS was not significant.

8. Collaborations

A collaborative arrangement is a contractual arrangement that involves a joint operating activity. Such arrangements involve two or more parties that are both (i) active participants in the activity and (ii) exposed to significant risks and rewards dependent on the commercial success of the activity.

From time to time, we enter into collaborative arrangements for the R&D, manufacture and/or commercialization of products and/or product candidates. These collaborations generally provide for nonrefundable upfront license fees, development and commercial-performance milestone payments, cost sharing, royalty payments and/or profit sharing. Our collaboration arrangements are performed with no guarantee of either technological or commercial success, and each arrangement is unique in nature. See Note 1, Summary of significant accounting policies, for additional discussion of revenues recognized for these types of arrangements. Operating expenses for costs incurred pursuant to these arrangements are reported in their respective expense line items in the Consolidated Statements of Income, net of any payments due to or reimbursements due from our collaboration partners, with such reimbursements being recognized at the time the party becomes obligated to pay. Our significant arrangements are discussed below.

Novartis AG

We are in a collaboration with Novartis AG (Novartis) to jointly develop and commercialize Aimovig® (erenumab-aooe). In the United States, Amgen and Novartis jointly develop and collaborate on the commercialization of Aimovig®. Amgen, as the principal, recognizes product sales of Aimovig® in the United States, shares U.S. commercialization costs with Novartis and pays Novartis a significant royalty on net sales in the United States. Novartis holds global co-development rights and exclusive commercial rights outside the United States and Japan for Aimovig® and other specified migraine programs. Novartis pays Amgen double-digit royalties on net sales of the products in the Novartis exclusive territories and funds a portion of global R&D expenses. In addition, Novartis will make a payment to Amgen of up to $100 million if certain commercial and expenditure thresholds are achieved with respect to Aimovig® in the United States. Amgen manufactures and supplies Aimovig® worldwide. The migraine collaboration will continue for the commercial lives of the products unless terminated in accordance with its terms.

We are currently involved in litigation with Novartis over our collaboration agreements for the development and commercialization of Aimovig®. See Note 19, Contingencies and commitments.

During the year ended December 31, 2019, net costs recovered from Novartis for migraine products were $187 million and were recorded primarily in Selling, general and administrative expense in the Consolidated Statements of Income. During the year ended December 31, 2018, net costs paid to Novartis for migraine products were $44 million and were recorded primarily in Selling, general and administrative expense in the Consolidated Statements of Income. During the year ended December 31, 2017, net costs recovered from Novartis for migraine products were $124 million and were recorded primarily in R&D expense in the Consolidated Statements of Income. During the years ended December 31, 2019 and 2018, royalties due to Novartis for the migraine products were $115 million and $43 million, respectively, and were recorded in Cost of sales in the Consolidated Statements of Income. During the years ended December 31, 2019 and 2018, royalties due from Novartis for the migraine products were not material. As a result of certain regulatory and commercial events, we received milestone payments from Novartis of $295 million during the year ended December 31, 2018, which was recorded in Other revenues in the Consolidated Statements of Income.

Bayer HealthCare LLC

We are in a collaboration with Bayer HealthCare LLC (Bayer) to jointly develop and commercialize Nexavar® (sorafenib) worldwide, except in Japan. The rights to develop and market Nexavar® in Japan are reserved to Bayer. Nexavar® is currently marketed and sold in more than 100 countries around the world for the treatment of unresectable liver cancer and advanced kidney cancer. In the United States, Nexavar® is also approved for the treatment of patients with locally recurrent or metastatic, progressive, differentiated thyroid carcinoma refractory to radioactive iodine treatment.

In 2015, we amended the terms of our collaboration agreement with Bayer, which terminated the co-promotion agreement in the United States and transferred all U.S. operational responsibilities to Bayer, including commercial and medical affairs activities. Prior to the termination of the co-promotion agreement, we co-promoted Nexavar® with Bayer and shared equally in the profits or losses in the United States. In lieu of this profit share, Bayer now pays Amgen a royalty on U.S. sales of Nexavar® at a percentage rate in the high 30s. Amgen no longer contributes sales force personnel or medical liaisons to support Nexavar® in the United States. There are no changes to the global R&D or non-U.S. profit share arrangements in the original agreement, as discussed below.

In all countries outside the United States and Japan, Bayer manages all commercialization activities and incurs all of the sales and marketing expenditures and mutually agreed R&D expenses, for which we continue to reimburse Bayer for half. In these countries, we continue to receive 50% of net profits on sales of Nexavar® after deducting certain Bayer-related costs.

The agreement with Bayer will terminate at the later of the date when patents expire that were issued in connection with product candidates discovered under the agreement or on the last day that we or Bayer market or sell products commercialized under the agreement anywhere in the world. Patents related to Nexavar® begin to expire in 2020.

During the years ended December 31, 2019, 2018 and 2017, Amgen recorded Nexavar® net profits of $210 million, $164 million and $161 million, respectively, which were recognized as Other revenues in the Consolidated Statements of Income. During the years ended December 31, 2019, 2018 and 2017, Amgen recorded royalty income of $79 million, $91 million and $133 million, respectively, in Other revenues in the Consolidated Statements of Income, pursuant to the 2015 amendment to the collaboration agreement. Net R&D expenses related to the agreement were not material for the years ended December 31, 2019, 2018 and 2017.

Other

In addition to the collaborations discussed above, we have various other collaborations that are not individually significant to our business at this time. Pursuant to the terms of those agreements, we may be required to pay additional amounts or we may receive additional amounts upon the achievement of various development and commercial milestones, which in the aggregate could be significant. We may also incur or have reimbursed to us significant R&D costs if the related product candidate were to advance to late-stage clinical trials. In addition, if any products related to these collaborations are approved for sale, we may be required to pay significant royalties or we may receive significant royalties on future sales. The payment of these amounts, however, is contingent upon the occurrence of various future events, which have a high degree of uncertainty of occurrence.

9. Investments

Available-for-sale investments

The amortized cost, gross unrealized gains, gross unrealized losses and fair values of interest-bearing securities, all of which are considered available-for-sale, by type of security were as follows (in millions):

Types of securities as of December 31, 2019	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
U.S. Treasury notes	$ 359	$ 1	$ —	$ 360
U.S. Treasury bills	—	—	—	—
Other government-related debt securities:				
U.S.	—	—	—	—
Foreign and other	—	—	—	—
Corporate debt securities:				
Financial	1,108	13	—	1,121
Industrial	824	10	—	834
Other	195	3	—	198
Residential-mortgage-backed securities	181	1	—	182
Other mortgage- and asset-backed securities	—	—	—	—
Money market mutual funds	5,250	—	—	5,250
Other short-term interest-bearing securities	289	—	—	289
Total available-for-sale investments	$ 8,206	$ 28	$ —	$ 8,234

Types of securities as of December 31, 2018	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
U.S. Treasury notes	$ 2,710	$ —	$ (47)	$ 2,663
U.S. Treasury bills	8,191	—	—	8,191
Other government-related debt securities:				
U.S.	112	—	(2)	110
Foreign and other	972	1	(41)	932
Corporate debt securities:				
Financial	2,778	—	(81)	2,697
Industrial	2,603	—	(99)	2,504
Other	583	—	(21)	562
Residential-mortgage-backed securities	1,458	—	(36)	1,422
Other mortgage- and asset-backed securities	483	—	(14)	469
Money market mutual funds	5,659	—	—	5,659
Other short-term interest-bearing securities	3,515	—	—	3,515
Total available-for-sale investments	$ 29,064	$ 1	$ (341)	$ 28,724

The fair values of available-for-sale investments by location in the Consolidated Balance Sheets were as follows (in millions):

	December 31,	
Consolidated Balance Sheets locations	2019	2018
Cash and cash equivalents	$ 5,360	$ 6,365
Marketable securities	2,874	22,359
Total available-for-sale investments	$ 8,234	$ 28,724

Cash and cash equivalents in the above table excludes bank account cash of $677 million and $580 million as of December 31, 2019 and 2018, respectively.

The fair values of available-for-sale investments by contractual maturity, except for mortgage- and asset-backed securities that do not have a single maturity date, were as follows (in millions):

	December 31,	
Contractual maturities	2019	2018
Maturing in one year or less	$ 5,629	$ 17,424
Maturing after one year through three years	2,304	3,356
Maturing after three years through five years	119	5,168
Maturing after five years through ten years	—	885
Mortgage- and asset-backed securities	182	1,891
Total available-for-sale investments	$ 8,234	$ 28,724

For the years ended December 31, 2019, 2018 and 2017, realized gains on interest-bearing securities were $92 million, $29 million and $147 million, respectively, and realized losses on interest-bearing securities were $36 million, $394 million and $213 million, respectively. Realized gains and losses on interest-bearing securities are recorded in Interest and other income, net, in the Consolidated Statements of Income. The cost of securities sold is based on the specific-identification method.

As of December 31, 2019, aggregate gross unrealized losses of available-for-sale investments were not materialAs of December 31, 2018, the fair values and gross unrealized losses of available-for-sale investments in an unrealized loss position aggregated by type and length of time that the securities have been in a continuous loss position were as follows (in millions):

	Less than 12 months		12 months or more	
Types of securities as of December 31, 2018	**Fair values**	**Unrealized losses**	**Fair values**	**Unrealized losses**
U.S. Treasury notes	$ 1,219	$ (21)	$ 1,444	$ (26)
Other government-related debt securities:				
U.S.	—	—	110	(2)
Foreign and other	631	(31)	240	(10)
Corporate debt securities:				
Financial	1,968	(59)	718	(22)
Industrial	1,898	(81)	529	(18)
Other	529	(20)	28	(1)
Residential-mortgage-backed securities	576	(14)	840	(22)
Other mortgage- and asset-backed securities	17	—	451	(14)
Total	$ 6,838	$ (226)	$ 4,360	$ (115)

The primary objective of our investment portfolio is to maintain safety of principal, prudent levels of liquidity and acceptable levels of risk. Our investment policy limits interest-bearing security investments to certain types of debt and money market instruments issued by institutions with primarily investment-grade credit ratings, and it places restrictions on maturities and concentration by asset class and issuer.

We review our available-for-sale investments for other-than-temporary declines in fair value below our cost basis each quarter and whenever events or changes in circumstances indicate that the cost basis of an asset may not be recoverable. The evaluation is based on a number of factors, including the length of time and the extent to which the fair value has been below our cost basis as well as adverse conditions related specifically to the security, such as any changes to the credit rating of the security and the intent to sell or whether we will more likely than not be required to sell the security before recovery of its amortized cost basis. Our assessment of whether a security is other-than-temporarily impaired could change in the future based on new developments or changes in assumptions related to that particular security. As of December 31, 2019 and 2018, we believe the cost bases for our available-for-sale investments were recoverable in all material respects.

Equity securities

We held investments in equity securities with readily determinable fair values of$303 million and $176 million as of December 31, 2019 and 2018, respectively, which are included in Other assets in the Consolidated Balance Sheets. Gains and losses recognized on equity securities with readily determinable fair values, including gains and losses recognized on sales, were not material for the years ended December 31, 2019, 2018 and 2017.

We held investments of $176 million and $222 million in equity securities without readily determinable fair values as ofDecember 31, 2019 and 2018, respectively, which are included in Other assets in the Consolidated Balance Sheets. Adjustments to the carrying values of these securities were not material for the years ended December 31, 2019, 2018 and 2017.

Limited partnership investments

We held limited partnership investments of $320 million and $285 million as of December 31, 2019 and 2018, respectively, which are included in Other assets in the Consolidated Balance Sheets. These investments are measured by using the net asset values of the underlying investments as a practical expedient. These investments are typically redeemable only through distributions upon liquidation of the underlying assets. As of December 31, 2019, unfunded additional commitments to be made for these investments during the next several years were not material. Gains and losses recognized on our limited partnership investments were not material for the years ended December 31, 2019, 2018 and 2017.

10. Inventories

Inventories consisted of the following (in millions):

	December 31,	
	2019	2018
Raw materials	$ 358	$ 257
Work in process	2,227	1,660
Finished goods	999	1,023
Total inventories	$ 3,584	$ 2,940

11. Property, plant and equipment

Property, plant and equipment consisted of the following (dollar amounts in millions):

		December 31,	
	Useful life (in years)	2019	2018
Land	—	$ 263	$ 265
Buildings and improvements	10-40	3,757	3,616
Manufacturing equipment	8-12	2,655	2,418
Laboratory equipment	8-12	1,236	1,174
Capitalized software	3-5	1,154	1,124
Other	3-15	3,313	3,204
Construction in progress	—	907	953
Property, plant and equipment, gross		13,285	12,754
Less accumulated depreciation and amortization		(8,357)	(7,796)
Property, plant and equipment, net		$ 4,928	$ 4,958

During the years ended December 31, 2019, 2018 and 2017, we recognized depreciation and amortization expense associated with our property, plant and equipment of $635 million, $630 million and $604 million, respectively.

Geographic information

Certain geographic information with respect to property, plant and equipment, net (long-lived assets), was as follows (in millions):

	December 31,	
	2019	2018
United States	$ 2,433	$ 2,373
Puerto Rico	1,402	1,476
ROW	1,093	1,109
Total property, plant and equipment, net	$ 4,928	$ 4,958

12. Goodwill and other intangible assets

Goodwill

The changes in the carrying amounts of goodwill were as follows (in millions):

	Years ended December 31,	
	2019	2018
Beginning balance	$ 14,699	$ 14,761
Addition from acquisitions	26	6
Currency translation adjustments	(22)	(68)
Ending balance	$ 14,703	$ 14,699

Other intangible assets

Other intangible assets consisted of the following (in millions):

	December 31,					
	2019			2018		
	Gross carrying amounts	Accumulated amortization	Other intangible assets, net	Gross carrying amounts	Accumulated amortization	Other intangible assets, net
Finite-lived intangible assets:						
Developed-product-technology rights	$ 25,575	$ (8,322)	$ 17,253	$ 12,573	$ (7,479)	$ 5,094
Licensing rights	3,761	(2,398)	1,363	3,772	(2,032)	1,740
Marketing-related rights	1,382	(965)	417	1,297	(1,019)	278
R&D technology rights	1,273	(947)	326	1,148	(872)	276
Total finite-lived intangible assets	31,991	(12,632)	19,359	18,790	(11,402)	7,388
Indefinite-lived intangible assets:						
IPR&D	54	—	54	55	—	55
Total other intangible assets	$ 32,045	$ (12,632)	$ 19,413	$ 18,845	$ (11,402)	$ 7,443

Developed-product-technology rights consists of rights related to marketed products acquired in acquisitions. Licensing rights consists primarily of contractual rights acquired in acquisitions to receive future milestone, royalty and profit-sharing payments; capitalized payments to third parties for milestones related to regulatory approvals to commercialize products; and up-front payments associated with royalty obligations for marketed products. Marketing-related rights consists primarily of rights related to the sale and distribution of marketed products. R&D technology rights pertains to technologies used in R&D that have alternative future uses. Developed-product-technology rights and marketing-related rights include assets acquired with the Otezla® acquisition. R&D technology rights includes assets acquired with the Nuevolution acquisition. See Note 2, Acquisitions.

IPR&D consists of R&D projects acquired in a business combination that are not complete at the time of acquisition due to remaining technological risks and/or lack of receipt of required regulatory approvals. All IPR&D projects have major risks and uncertainties associated with the timely and successful completion of the development and commercialization of product candidates, including our ability to confirm safety and efficacy based on data from clinical trials, our ability to obtain necessary regulatory approvals and our ability to successfully complete these tasks within budgeted costs. We are not permitted to market a human therapeutic without obtaining regulatory approvals, and such approvals require the completion of clinical trials that demonstrate that a product candidate is safe and effective. In addition, the availability and extent of coverage and reimbursement from third-party payers, including government healthcare programs and private insurance plans as well as competitive product launches, affect the revenues a product can generate. Consequently, the eventual realized values, if any, of acquired IPR&D projects may vary from their estimated fair values. We review IPR&D projects for impairment annually, whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable and upon the establishment of technological feasibility or regulatory approval.

During the years ended December 31, 2019, 2018 and 2017, we recognized amortization associated with our finite-lived intangible assets of $1.4 billion, $1.3 billion and $1.3 billion, respectively. Amortization of intangible assets is included primarily in Cost of sales in the Consolidated Statements of Income. The total estimated amortization for our finite-lived intangible assets for the years ending December 31, 2020, 2021, 2022, 2023 and 2024, are $2.8 billion, $2.6 billion, $2.5 billion, $2.4 billion and $2.4 billion, respectively.

13. Leases

On January 1, 2019, we adopted a new accounting standard that amends the guidance for the accounting and reporting of leases. Certain required disclosures have been made on a prospective basis in accordance with the standard's guidance. See Note 1, Summary of significant accounting policies.

We lease certain facilities and equipment related primarily to administrative, R&D and sales and marketing activities. Leases with terms of 12 months or less are expensed on a straight-line basis over the term and are not recorded in the Consolidated Balance Sheets.

Most leases include one or more options to renew, with renewal terms that may extend the lease term up to seven years. The exercise of lease renewal options is at our sole discretion. In addition, some of our lease agreements include rental payments adjusted periodically for inflation. Our lease agreements neither contain residual value guarantees nor impose significant restrictions or covenants. We sublease certain real estate to third parties. Our sublease portfolio consists of operating leases from former R&D and administrative space.

The following table summarizes information related to our leases, all of which are classified as operating, included in our Consolidated Balance Sheets (in millions):

Consolidated Balance Sheets locations	December 31, 2019
Assets:	
Other assets	$ 469
Liabilities:	
Accrued liabilities	$ 140
Other noncurrent liabilities	388
Total lease liabilities	$ 528

The components of net lease costs were as follows (in millions):

Lease costs	Year ended December 31, 2019
Operating[1]	$ 204
Sublease income	(33)
Total net lease costs	$ 171

[1] Includes short-term leases and variable lease costs, which were not material for the year ended December 31, 2019.

Maturities of lease liabilities as of December 31, 2019, were as follows (in millions):

Maturity dates	Amounts
2020	$ 157
2021	150
2022	110
2023	88
2024	30
Thereafter	32
Total lease payments[1]	567
Less imputed interest	(39)
Present value of lease liabilities	$ 528

[1] Includes future rental commitments for abandoned leases of $178 million. We expect to receive total future rental income of $141 million related to noncancelable subleases for abandoned facilities.

The weighted-average remaining lease term and weighted-average discount rate of our leases were 4.1 years and 3.3%, respectively, as of December 31, 2019.

Cash and noncash information related to our leases was as follows (in millions):

	Year ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows for operating leases	$ 148
ROU assets obtained in exchange for lease obligations:	
Operating leases	$ 163

As of December 31, 2019, we have entered into leases that have not yet commenced, with total undiscounted future lease payments of $306 million. Theses leases will commence between 2020 and 2021 with lease terms from 5 years to 15 years.

The following table summarizes minimum future rental commitments related to noncancelable operating leases under the prior lease guidance as of December 31, 2018 (in millions):

	Amounts
2019	$ 164
2020	126
2021	113
2022	64
2023	56
Thereafter	46
Total minimum operating lease commitments	$ 569

Included in the table above are future rental commitments for abandoned leases in the amount of $222 million. As of December 31, 2018, we expect to receive total future rental income of $203 million related to noncancelable subleases for abandoned facilities. Rental expenses on operating leases under the prior lease guidance for the years ended December 31, 2018 and 2017, were $166 million and $159 million, respectively.

14. Other current assets and accrued liabilities

Other current assets consisted of the following (in millions):

	December 31,	
	2019	2018
Prepaid expenses	$ 939	$ 907
Corporate partner receivables	485	444
Interest receivables	110	177
Other	354	266
Total other current assets	$ 1,888	$ 1,794

Accrued liabilities consisted of the following (in millions):

	December 31,	
	2019	2018
Sales deductions	$ 3,880	$ 3,170
Employee compensation and benefits	981	1,001
Dividends payable	946	914
Sales returns reserve	564	535
Other	2,140	2,242
Total accrued liabilities	$ 8,511	$ 7,862

15. Financing arrangements

Our borrowings consisted of the following (in millions):

	December 31,	
	2019	2018
5.70% notes due 2019 (5.70% 2019 Notes)	$ —	$ 1,000
1.90% notes due 2019 (1.90% 2019 Notes)	—	700
Floating Rate Notes due 2019	—	550
2.20% notes due 2019 (2.20% 2019 Notes)	—	1,400
2.125% €675 million notes due 2019 (2.125% 2019 euro Notes)	—	774
4.50% notes due 2020 (4.50% 2020 Notes)	300	300
2.125% notes due 2020 (2.125% 2020 Notes)	750	750
Floating Rate Notes due 2020	300	300
2.20% notes due 2020 (2.20% 2020 Notes)	700	700
3.45% notes due 2020 (3.45% 2020 Notes)	900	900
4.10% notes due 2021 (4.10% 2021 Notes)	1,000	1,000
1.85% notes due 2021 (1.85% 2021 Notes)	750	750
3.875% notes due 2021 (3.875% 2021 Notes)	1,750	1,750
1.25% €1,250 million notes due 2022 (1.25% 2022 euro Notes)	1,402	1,433
2.70% notes due 2022 (2.70% 2022 Notes)	500	500
2.65% notes due 2022 (2.65% 2022 Notes)	1,500	1,500
3.625% notes due 2022 (3.625% 2022 Notes)	750	750
0.41% CHF700 million bonds due 2023 (0.41% 2023 Swiss franc Bonds)	725	713
2.25% notes due 2023 (2.25% 2023 Notes)	750	750
3.625% notes due 2024 (3.625% 2024 Notes)	1,400	1,400
3.125% notes due 2025 (3.125% 2025 Notes)	1,000	1,000
2.00% €750 million notes due 2026 (2.00% 2026 euro Notes)	841	860
2.60% notes due 2026 (2.60% 2026 Notes)	1,250	1,250
5.50% £475 million notes due 2026 (5.50% 2026 pound sterling Notes)	630	606
3.20% notes due 2027 (3.20% 2027 Notes)	1,000	1,000
4.00% £700 million notes due 2029 (4.00% 2029 pound sterling Notes)	928	893
6.375% notes due 2037 (6.375% 2037 Notes)	552	552
6.90% notes due 2038 (6.90% 2038 Notes)	291	291
6.40% notes due 2039 (6.40% 2039 Notes)	466	466
5.75% notes due 2040 (5.75% 2040 Notes)	412	412
4.95% notes due 2041 (4.95% 2041 Notes)	600	600
5.15% notes due 2041 (5.15% 2041 Notes)	974	974
5.65% notes due 2042 (5.65% 2042 Notes)	487	487
5.375% notes due 2043 (5.375% 2043 Notes)	261	261
4.40% notes due 2045 (4.40% 2045 Notes)	2,250	2,250
4.563% notes due 2048 (4.563% 2048 Notes)	1,415	1,415
4.663% notes due 2051 (4.663% 2051 Notes)	3,541	3,541
Other notes due 2097	100	100
Unamortized bond discounts, premiums and issuance costs, net	(868)	(896)
Fair value adjustments	296	(53)
Total carrying value of debt	29,903	33,929
Less current portion	(2,953)	(4,419)
Total long-term debt	$ 26,950	$ 29,510

There are no material differences between the effective interest rates and the coupon rates of any of our borrowings, except for the 4.563% 2048 Notes and the 4.663% 2051 Notes, which have effective interest rates of 6.3% and 5.6%, respectively.

Under the terms of all of our outstanding notes, except our Other notes due 2097, in the event of a change-in-control triggering event we may be required to purchase all or a portion of these debt securities at prices equal to 101% of the principal amounts of the notes plus accrued and unpaid interest. In addition, all of our outstanding notes—except our floating-rate notes, 0.41% 2023 Swiss franc Bonds and Other notes due 2097—may be redeemed at any time at our option—in whole or in part—at the principal amounts of the notes being redeemed plus accrued and unpaid interest and make-whole amounts, which are defined by the terms of the notes. Certain of the redeemable notes do not require the payment of make-whole amounts if redeemed during a specified period of time immediately prior to the maturity of the notes. Such time periods range from one month to six months prior to maturity.

Debt issuances

During the year ended December 31, 2017, we issued $4.5 billion principal amount of notes, consisting of the Floating Rate Notes due 2019, the 1.90% 2019 Notes, the Floating Rate Notes due 2020, the 2.20% 2020 Notes, the 2.65% 2022 Notes and the 3.20% 2027 Notes. We did not issue any debt or debt securities during the years ended December 31, 2019 and 2018.

As of December 31, 2019, we have a commercial paper program that allows us to issue up to $2.5 billion of unsecured commercial paper to fund our working-capital needs. During the year ended December 31, 2017, we issued and repaid an aggregate of $12.3 billion of commercial paper and had a maximum outstanding balance of $1.5 billion under our commercial paper program. During the years ended December 31, 2019 and 2018, we did not issue any commercial paper.

Debt repayments

We made debt repayments during the years ended December 31, 2019, 2018 and 2017 as follows:

- In 2019, we repaid $4.5 billion of debt, including the $1.4 billion aggregate principal amount of the 2.20% 2019 Notes, the $1.0 billion aggregate principal amount of the 5.70% 2019 Notes, the €675 million aggregate principal amount ($864 million upon settlement of the related cross-currency swap) of the 2.125% 2019 euro Notes, the $700 million aggregate principal amount of the 1.90% 2019 Notes and the $550 million Floating Rate Notes due 2019.
- In 2018, we repaid $1.1 billion of debt, including the $500 million aggregate principal amount of the 6.15% 2018 Notes and the €550 million aggregate principal amount of the 4.375% 2018 Notes revalued at $621 million upon maturity.
- In 2017, we repaid $4.4 billion of debt, including the $605 million short-term floating-rate loan, the $1.25 billion aggregate principal amount of the 2.125% 2017 Notes, the $600 million aggregate principal amount of the Floating Rate Notes due 2017, the $850 million aggregate principal amount of the 1.25% 2017 Notes and the $1.1 billion aggregate principal amount of the 5.85% 2017 Notes.

Interest rate swaps

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that effectively converted fixed-rate interest coupons for certain of our debt issuances to floating London Interbank Offered Rate (LIBOR)-based coupons over the lives of the respective notes. These interest rate swap contracts qualified and are designated as fair value hedges.

The effective interest rates on notes for which we have entered into interest rate swap contracts and the related notional amounts of these contracts were as follows (dollar amounts in millions):

		December 31,	
		2019	2018
Notes	Effective interest rates	Notional amounts	
2.20% 2019 Notes	LIBOR + 0.6%	$ —	$ 1,400
3.45% 2020 Notes	LIBOR + 1.1%	900	900
4.10% 2021 Notes	LIBOR + 1.7%	1,000	1,000
3.875% 2021 Notes	LIBOR + 2.0%	1,750	1,750
3.625% 2022 Notes	LIBOR + 1.6%	750	750
3.625% 2024 Notes	LIBOR + 1.4%	1,400	1,400
3.125% 2025 Notes	LIBOR + 0.9%	1,000	1,000
2.60% 2026 Notes	LIBOR + 0.3%	1,250	1,250
4.663% 2051 Notes	LIBOR + 0.0%	1,500	1,500
Total notional amounts		$ 9,550	$ 10,950

Cross-currency swaps

In order to hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term notes denominated in foreign currencies, we entered into cross-currency swap contracts. The terms of these contracts effectively convert the interest payments and principal repayments on our 1.25% 2022 euro Notes, 0.41% 2023 Swiss franc Bonds, 2.00% 2026 euro Notes, 5.50% 2026 pound sterling Notes and 4.00% 2029 pound sterling Notes from euros, pounds sterling and Swiss francs to U.S. dollars. These cross-currency swap contracts have been designated as cash flow hedges. For information regarding the terms of these contracts, see Note 18, Derivative instruments.

Shelf registration statements and other facilities

In 2019, we amended and restated our $2.5 billion syndicated, unsecured, revolving credit agreement, which is available for general corporate purposes or as a liquidity backstop to our commercial paper program. The commitments under the revolving credit agreement may be increased by up to $750 million with the agreement of the banks. Each bank that is a party to the agreement has an initial commitment term of five years. This term may be extended for up to two additional one-year periods with the agreement of the banks. Annual commitment fees for this agreement are 0.09% of the unused portion of the facility based on our current credit rating. Generally, we would be charged interest for any amounts borrowed under this facility, based on our current credit rating, at (i) LIBOR plus 1% or (ii) the highest of (A) the syndication agent bank base commercial lending rate, (B) the overnight federal funds rate plus 0.50% or (C) one-month LIBOR plus 1%. The agreement contains provisions relating to the determination of successor rates to address the possible phase-out or unavailability of designated reference rates. As of December 31, 2019 and 2018, no amounts were outstanding under this facility.

In February 2020, we filed a shelf registration statement with the SEC that allows us to issue unspecified amounts of debt securities; common stock; preferred stock; warrants to purchase debt securities, common stock, preferred stock or depositary shares; rights to purchase common stock or preferred stock; securities purchase contracts; securities purchase units; and depositary shares. Under this shelf registration statement, all of the securities available for issuance may be offered from time to time with terms to be determined at the time of issuance. This shelf registration statement expires in February 2023.

Certain of our financing arrangements contain nonfinancial covenants. In addition, our revolving credit agreement includes a financial covenant, which requires that we maintain a specified minimum interest coverage ratio of (i) the sum of consolidated net income, interest expense, provision for income taxes, depreciation expense, amortization expense, unusual or nonrecurring charges and other noncash items (Consolidated EBITDA) to (ii) Consolidated Interest Expense, each as defined and described in the credit agreement. We were in compliance with all applicable covenants under these arrangements as of December 31, 2019.

Contractual maturities of debt obligations

The aggregate contractual maturities of all borrowings due subsequent to December 31, 2019, are as follows (in millions):

Maturity dates	Amounts
2020	$ 2,950
2021	3,500
2022	4,152
2023	1,474
2024	1,400
Thereafter	16,999
Total	$ 30,475

Interest costs

Interest costs are expensed as incurred except to the extent such interest is related to construction in progress, in which case interest is capitalized. Interest costs capitalized for the years ended December 31, 2019, 2018 and 2017, were not material. Interest paid, including the ongoing impact of interest rate and cross-currency swap contracts, during the years ended December 31, 2019, 2018 and 2017, was $1.3 billion, $1.5 billion and $1.3 billion, respectively.

16. Stockholders' equity

Stock repurchase program

Activity under our stock repurchase program, on a trade date basis, was as follows (in millions):

	Years ended December 31,					
	2019		2018		2017	
	Shares*	Dollars	Shares*	Dollars	Shares	Dollars
First quarter	15.9	$ 3,031	56.4	$ 10,787	3.4	$ 555
Second quarter	13.1	2,349	18.2	3,190	6.2	1,006
Third quarter	6.2	1,170	8.7	1,713	4.4	769
Fourth quarter	5.1	1,090	11.1	2,165	4.5	796
Total stock repurchases	40.2	$ 7,640	94.5	$ 17,855	18.5	$ 3,126

* Total shares do not add due to rounding.

In May 2019 and December 2019, our Board of Directors increased the amount authorized under our stock repurchase program by an additional $5.0 billion and $4.0 billion, respectively. As of December 31, 2019, $6.5 billion remained available under our stock repurchase program.

Dividends

Our Board of Directors declared quarterly dividends per share of $1.45, $1.32 and $1.15, which were paid in each of the four quarters of 2019, 2018, and 2017, respectively.

Historically, we have declared dividends in December of each year, which were paid in the first quarter of the following fiscal year and in March, July and October, which were paid in the second, third and fourth quarters, respectively, of the same fiscal year. Additionally, on December 11, 2019, the Board of Directors declared a quarterly cash dividend of $1.60 per share of common stock, which will be paid on March 6, 2020, to all stockholders of record as of the close of business on February 14, 2020.

Accumulated other comprehensive income (loss)

The components of AOCI were as follows (in millions):

	Foreign currency translation	Cash flow hedges	Available-for-sale securities	Other	AOCI
Balance as of December 31, 2016	$ (610)	$ 282	$ (138)	$ (5)	$ (471)
Foreign currency translation adjustments	77	—	—	—	77
Unrealized gains (losses)	—	192	(46)	—	146
Reclassification adjustments to income	—	(638)	41	—	(597)
Other gains	—	—	—	5	5
Income taxes	4	158	(1)	—	161
Balance as of December 31, 2017	(529)	(6)	(144)	—	(679)
Cumulative effect of change in accounting principle, net of tax	—	—	(9)	—	(9)
Foreign currency translation adjustments	(141)	—	—	—	(141)
Unrealized gains (losses)	—	61	(556)	—	(495)
Reclassification adjustments to income	—	262	365	—	627
Other losses	—	—	—	(2)	(2)
Income taxes	—	(76)	6	—	(70)
Balance as of December 31, 2018	(670)	241	(338)	(2)	(769)
Foreign currency translation adjustments	(48)	—	—	—	(48)
Unrealized gains	—	127	424	—	551
Reclassification adjustments to income	—	(211)	(56)	—	(267)
Other losses	—	—	—	(5)	(5)
Income taxes	—	18	(8)	—	10
Balance as of December 31, 2019	$ (718)	$ 175	$ 22	$ (7)	$ (528)

With respect to the table above, income tax expenses or benefits for unrealized gains and losses and the related reclassification adjustments to income for cash flow hedges were a $28 million expense and a $46 million benefit in 2019, a $21 million expense and a $55 million expense in 2018 and a $68 million expense and a $226 million benefit in 2017, respectively. Income tax expenses or benefits for unrealized gains and losses and the related reclassification adjustments to income for available-for-sale securities were a $22 million expense and a $14 million benefit in 2019, a $9 million benefit and a $3 million expense in 2018 and a $9 million expense and an $8 million benefit in 2017, respectively.

Reclassifications out of AOCI and into earnings were as follows (in millions):

Components of AOCI	Years ended December 31, 2019	2018	2017	Consolidated Statements of Income locations
Cash flow hedges:				
Foreign currency contract gains (losses)	$ 101	$ (21)	$ 65	Product sales
Cross-currency swap contract gains (losses)	110	(241)	574	Interest and other income, net
Forward interest rate contract losses	—	—	(1)	Interest expense, net
	211	(262)	638	Income before income taxes
	(46)	55	(226)	Provision for income taxes
	$ 165	$ (207)	$ 412	Net income
Available-for-sale securities:				
Net realized gains (losses)	$ 56	$ (365)	$ (41)	Interest and other income, net
	(14)	3	(8)	Provision for income taxes
	$ 42	$ (362)	$ (49)	Net income

Other

In addition to common stock, our authorized capital includes 5 million shares of preferred stock, $0.0001 par value. As of December 31, 2019 and 2018, no shares of preferred stock were issued or outstanding.

17. Fair value measurement

To estimate the fair value of our financial assets and liabilities, we use valuation approaches within a hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing an asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing an asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy is divided into three levels based on the source of inputs as follows:

Level 1 — Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access

Level 2 — Valuations for which all significant inputs are observable either directly or indirectly—other than Level 1 inputs

Level 3 — Valuations based on inputs that are unobservable and significant to the overall fair value measurement

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. In certain cases, the inputs used for measuring fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level of input used that is significant to the overall fair value measurement.

The fair values of each major class of the Company's financial assets and liabilities measured at fair value on a recurring basis were as follows (in millions):

Fair value measurement as of December 31, 2019, using:	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Available-for-sale securities:				
U.S. Treasury notes	$ 360	$ —	$ —	$ 360
U.S. Treasury bills	—	—	—	—
Other government-related debt securities:				
U.S.	—	—	—	—
Foreign and other	—	—	—	—
Corporate debt securities:				
Financial	—	1,121	—	1,121
Industrial	—	834	—	834
Other	—	198	—	198
Residential-mortgage-backed securities	—	182	—	182
Other mortgage- and asset-backed securities	—	—	—	—
Money market mutual funds	5,250	—	—	5,250
Other short-term interest-bearing securities	—	289	—	289
Equity securities	303	—	—	303
Derivatives:				
Foreign currency contracts	—	224	—	224
Cross-currency swap contracts	—	66	—	66
Interest rate swap contracts	—	259	—	259
Total assets	$ 5,913	$ 3,173	$ —	$ 9,086
Liabilities:				
Derivatives:				
Foreign currency contracts	$ —	$ 31	$ —	$ 31
Cross-currency swap contracts	—	315	—	315
Interest rate swap contracts	—	—	—	—
Contingent consideration obligations	—	—	61	61
Total liabilities	$ —	$ 346	$ 61	$ 407

Fair value measurement as of December 31, 2018, using:	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Available-for-sale securities:				
U.S. Treasury notes	$ 2,663	$ —	$ —	$ 2,663
U.S. Treasury bills	8,191	—	—	8,191
Other government-related debt securities:				
U.S.	—	110	—	110
Foreign and other	—	932	—	932
Corporate debt securities:				
Financial	—	2,697	—	2,697
Industrial	—	2,504	—	2,504
Other	—	562	—	562
Residential-mortgage-backed securities	—	1,422	—	1,422
Other mortgage- and asset-backed securities	—	469	—	469
Money market mutual funds	5,659	—	—	5,659
Other short-term interest-bearing securities	—	3,515	—	3,515
Equity securities	176	—	—	176
Derivatives:				
Foreign currency contracts	—	182	—	182
Cross-currency swap contracts	—	170	—	170
Interest rate swap contracts	—	56	—	56
Total assets	$ 16,689	$ 12,619	$ —	$ 29,308
Liabilities:				
Derivatives:				
Foreign currency contracts	$ —	$ 26	$ —	$ 26
Cross-currency swap contracts	—	401	—	401
Interest rate swap contracts	—	149	—	149
Contingent consideration obligations	—	—	72	72
Total liabilities	$ —	$ 576	$ 72	$ 648

Interest-bearing and equity securities

The fair values of our U.S. Treasury securities, money market mutual funds and equity securities are based on quoted market prices in active markets, with no valuation adjustment.

As of December 31, 2019, our corporate debt securities are investment grade and have maturity dates ofthree years or less from the balance sheet date. Our corporate debt securities portfolio has weighted-average credit ratings of A– or equivalent by Standard & Poor's Financial Services LLC (S&P) or Moody's Investors Service, Inc. (Moody's), and A by Fitch Ratings, Inc. (Fitch). We estimate the fair values of these securities by taking into consideration valuations obtained from third-party pricing services. The pricing services use industry-standard valuation models, including both income- and market-based approaches, for which all significant inputs are observable either directly or indirectly to estimate fair value. The inputs include reported trades of and broker-dealer quotes on the same or similar securities; issuer credit spreads; benchmark securities; and other observable inputs.

Our residential-mortgage-backed-securities portfolio is composed entirely of senior tranches with credit ratings of AAA by S&P, Moody's or Fitch. We estimate the fair values of these securities by taking into consideration valuations obtained from third-party pricing services. The pricing services use industry-standard valuation models, including both income- and market-based approaches, for which all significant inputs are observable either directly or indirectly to estimate fair value. The inputs include reported trades of and broker-dealer quotes on the same or similar securities; issuer credit spreads; benchmark securities; prepayment or default projections based on historical data; and other observable inputs.

We value our other short-term interest-bearing securities at amortized cost, which approximates fair value given their near-term maturity dates.

Derivatives

All of our foreign currency forward and option derivative contracts have maturities of three years or less, and all are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by taking into consideration valuations obtained from a third-party valuation service that uses an income-based industry-standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include foreign currency exchange rates, the LIBOR, swap rates and obligor credit default swap rates. In addition, inputs for our foreign currency option contracts include implied volatility measures. These inputs, when applicable, are at commonly quoted intervals. See Note 18, Derivative instruments.

Our cross-currency swap contracts are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by taking into consideration valuations obtained from a third-party valuation service that uses an income-based industry-standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include foreign currency exchange rates, LIBOR, swap rates, obligor credit default swap rates and cross-currency basis swap spreads. See Note 18, Derivative instruments.

Our interest rate swap contracts are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by using an income-based industry-standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include LIBOR, swap rates and obligor credit default swap rates. See Note 18, Derivative instruments.

Contingent consideration obligations

As a result of our acquisitions, we have incurred contingent consideration obligations. The contingent consideration obligations are recorded at their fair values by using probability-adjusted discounted cash flows, and we revalue these obligations each reporting period until the related contingencies have been resolved. The fair value measurements of these obligations are based on significant unobservable inputs related to licensing rights and product candidates acquired in business combinations, and they are reviewed quarterly by management in our R&D and commercial sales organizations. Changes in the fair values of contingent consideration obligations are recognized in Other operating expenses in the Consolidated Statements of Income. Changes in the carrying amounts of contingent consideration obligations for the years ended December 31, 2019 and 2018, were not material. During the year ended December 31, 2017, we recorded a $110 million reduction to contingent consideration obligations due substantially to amounts associated with the Dezima Pharma B.V. (Dezima) acquisition, discussed below.

As a result of our acquisition of K-A in 2018, we are obligated to make single-digit royalty payments to Kirin contingent upon sales of brodalumab. See Note 2, Acquisitions.

As a result of our acquisition of Dezima in 2015, we are obligated to pay its former shareholders up to $1.25 billion of additional consideration contingent upon achieving certain development and sales-related milestones and low single-digit royalties on net product sales above a certain threshold for AMG 899, an IPR&D asset. The fair values of the contingent consideration obligations had an aggregate value of $110 million at acquisition. During 2017, we decided to discontinue the internal development of AMG 899 and accordingly, we reduced from $116 million to $0 the related contingent consideration liabilities and recognized an impairment charge of $400 million on the IPR&D asset in Other operating expenses in the Consolidated Statements of Income. The remeasurement of these liabilities and the impairment charge are included in Other items, net, in the Consolidated Statements of Cash Flows.

As a result of our acquisition of BioVex Group Inc. in 2011, we are obligated to pay its former shareholders up to $325 million upon achieving separate regulatory and sales-related milestones with regard to IMLYGIC® (talimogene laherparepvec) if certain sales thresholds are met within specified periods of time.

During the years ended December 31, 2019 and 2018, there were no transfers of assets or liabilities between fair value measurement levels, and there were no material remeasurements to the fair values of assets and liabilities that are not measured at fair value on a recurring basis, except with respect to the 2018 discontinuance of the internal development of a program that resulted in an impairment of an IPR&D asset of $330 million, which was recognized in Other operating expenses in the Consolidated Statements of Income and included in Other items, net, in the Consolidated Statements of Cash Flows.

Summary of the fair values of other financial instruments

Cash equivalents

The fair values of cash equivalents approximate their carrying values due to the short-term nature of such financial instruments.

Borrowings

We estimated the fair values of our borrowings by using Level 2 inputs. As of December 31, 2019 and 2018, the aggregate fair values of our borrowings were $33.7 billion and $35.0 billion, respectively, and the carrying values were $29.9 billion and $33.9 billion, respectively.

18. Derivative instruments

The Company is exposed to foreign currency exchange rate and interest rate risks related to its business operations. To reduce our risks related to such exposures, we use or have used certain derivative instruments, including foreign currency forward, foreign currency option, cross-currency swap, forward interest rate and interest rate swap contracts. We do not use derivatives for speculative trading purposes.

Cash flow hedges

We are exposed to possible changes in the values of certain anticipated foreign currency cash flows resulting from changes in foreign currency exchange rates associated primarily with our euro-denominated international product sales. Increases and decreases in the cash flows associated with our international product sales due to movements in foreign currency exchange rates are offset partially by corresponding increases and decreases in the cash flows from our international operating expenses resulting from these foreign currency exchange rate movements. To further reduce our exposure to foreign currency exchange rate fluctuations with regard to our international product sales, we enter into foreign currency forward and option contracts to hedge a portion of our projected international product sales primarily over a three-year time horizon, with, at any given point in time, a higher percentage of nearer-term projected product sales being hedged than in successive periods.

As of December 31, 2019, 2018 and 2017, we had outstanding foreign currency forward contracts with aggregate notional amounts of $5.0 billion, $4.5 billion and $4.6 billion, respectively. As of December 31, 2018 and 2017 we had outstanding foreign currency option contracts with aggregate notional amounts of $21 million and $74 million, respectively, and no such outstanding contracts as of December 31, 2019. We have designated these foreign currency forward and foreign currency option contracts, which are primarily euro based, as cash flow hedges. Accordingly, we report the unrealized gains and losses on these contracts in AOCI in the Consolidated Balance Sheets, and we reclassify them to Product sales in the Consolidated Statements of Income in the same periods during which the hedged transactions affect earnings.

To hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term debt denominated in foreign currencies, we enter into cross-currency swap contracts. Under the terms of such contracts, we paid euros, pounds sterling and Swiss francs and received U.S. dollars for the notional amounts at the inception of the contracts; and based on these notional amounts, we exchange interest payments at fixed rates over the lives of the contracts by paying U.S. dollars and receiving euros, pounds sterling and Swiss francs. In addition, we will pay U.S. dollars to and receive euros, pounds sterling and Swiss francs from the counterparties at the maturities of the contracts for these same notional amounts. The terms of these contracts correspond to the related hedged debt, thereby effectively converting the interest payments and principal repayment on the debt from euros, pounds sterling and Swiss francs to U.S. dollars. We have designated these cross-currency swap contracts as cash flow hedges. Accordingly, the unrealized gains and losses on these contracts are reported in AOCI in the Consolidated Balance Sheets and reclassified to Interest and other income, net, in the Consolidated Statements of Income in the same periods during which the hedged debt affects earnings.

The notional amounts and interest rates of our cross-currency swaps as of December 31, 2019, were as follows (notional amounts in millions):

	Foreign currency			U.S. dollars	
Hedged notes	**Notional amounts**		**Interest rates**	**Notional amounts**	**Interest rates**
1.25% 2022 euro Notes	€	1,250	1.3%	$ 1,388	3.2%
0.41% 2023 Swiss franc Bonds	CHF	700	0.4%	$ 704	3.4%
2.00% 2026 euro Notes	€	750	2.0%	$ 833	3.9%
5.50% 2026 pound sterling Notes	£	475	5.5%	$ 747	6.0%
4.00% 2029 pound sterling Notes	£	700	4.0%	$ 1,111	4.5%

During the year ended December 31, 2019, our 2.125% 2019 euro Notes matured, and the related cross-currency swaps were settled.

In connection with the anticipated issuance of long-term fixed-rate debt, we occasionally enter into forward interest rate contracts in order to hedge the variability in cash flows due to changes in the applicable U.S. Treasury rate between the time we enter into these contracts and the time the related debt is issued. Gains and losses on forward interest rate contracts, which are designated as cash flow hedges, are recognized in AOCI in the Consolidated Balance Sheets and are amortized into Interest expense, net, in the Consolidated Statements of Income over the lives of the associated debt issuances. Amounts recognized in connection with forward interest rate swaps during the year ended December 31, 2019, and amounts expected to be recognized during the subsequent 12 months are not material.

The unrealized gains and losses recognized in AOCI for our derivative instruments designated as cash flow hedges were as follows (in millions):

	Years ended December 31,		
Derivatives in cash flow hedging relationships	**2019**	**2018**	**2017**
Foreign currency contracts	$ 148	$ 348	$ (402)
Cross-currency swap contracts	(21)	(287)	581
Forward interest rate contracts	—	—	13
Total unrealized gains	$ 127	$ 61	$ 192

Fair value hedges

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that qualified for and were designated as fair value hedges. These interest rate swap contracts effectively convert fixed-rate coupons to floating-rate LIBOR-based coupons over the terms of the related hedge contracts. As of December 31, 2019 and 2018, we had interest rate swap contracts with aggregate notional amounts of $9.6 billion and $11.0 billion, respectively, that hedge certain portions of our long-term debt issuances.

For interest rate swap contracts that qualify for and are designated as fair value hedges, we recognize in Interest expense, net, in the Consolidated Statements of Income the unrealized gain or loss on the derivative resulting from the change in fair value during the period, as well as the offsetting unrealized loss or gain of the hedged item resulting from the change in fair value during the period attributable to the hedged risk. If a hedging relationship involving an interest rate swap contract is terminated, the gain or loss realized on contract termination is recorded as an adjustment to the carrying value of the debt and amortized into Interest expense, net, over the remaining life of the previously hedged debt.

The hedged liabilities and related cumulative-basis adjustments for fair value hedges of those liabilities were recorded in the Consolidated Balance Sheets as follows (in millions):

	Carrying amounts of hedged liabilities[1]		Cumulative amounts of fair value hedging adjustments related to the carrying amounts of the hedged liabilities[2]	
	December 31,		December 31,	
Consolidated Balance Sheets locations	2019	2018	2019	2018
Current portion of long-term debt	$ 903	$ 2,396	$ 4	$ (3)
Long-term debt	$ 8,814	$ 9,361	$ 292	$ (50)

(1) Current portion of long-term debt includes $1.0 billion of carrying value with discontinued hedging relationships as of December 31, 2018. Long-term debt includes $136 million and $137 million of carrying value with discontinued hedging relationships as of December 31, 2019 and 2018, respectively.

(2) Current portion of long-term debt includes $3 million of hedging adjustments on discontinued hedging relationships as of December 31, 2018. Long-term debt includes $36 million and $37 million of hedging adjustments on discontinued hedging relationships as of December 31, 2019 and 2018, respectively.

Impact of hedging transactions

The following tables summarize the amounts recorded in income and expense line items and the effects thereon from fair value and cash flow hedging, including discontinued hedging relationships (in millions):

	Year ended December 31, 2019		
	Product sales	Interest and other income, net	Interest (expense), net
Total amounts recorded in income and (expense) line items presented in the Consolidated Statements of Income	$ 22,204	$ 753	$ (1,289)
The effects of cash flow and fair value hedging:			
Gains on cash flow hedging relationships reclassified out of AOCI:			
Foreign currency contracts	$ 101	$ —	$ —
Cross-currency swap contracts	$ —	$ 110	$ —
(Losses) gains on fair value hedging relationships—interest rate swap agreements:			
Hedged items[1]	$ —	$ —	$ (349)
Derivatives designated as hedging instruments	$ —	$ —	$ 352

	Year ended December 31, 2018		
	Product sales	Interest and other income, net	Interest (expense), net
Total amounts recorded in income and (expense) line items presented in the Consolidated Statements of Income	$ 22,533	$ 674	$ (1,392)
The effects of cash flow and fair value hedging:			
Losses on cash flow hedging relationships reclassified out of AOCI:			
Foreign currency contracts	$ (21)	$ —	$ —
Cross-currency swap contracts	$ —	$ (241)	$ —
Gains (losses) on fair value hedging relationships—interest rate swap agreements:			
Hedged items[1]	$ —	$ —	$ 65
Derivatives designated as hedging instruments	$ —	$ —	$ (42)

	Year ended December 31, 2017		
	Product sales	Interest and other income, net	Interest (expense), net
Total amounts recorded in income and (expense) line items presented in the Consolidated Statements of Income	$ 21,795	$ 928	$ (1,304)
The effects of cash flow and fair value hedging:			
Gains (losses) on cash flow hedging relationships reclassified out of AOCI:			
Foreign currency contracts	$ 65	$ —	$ —
Cross-currency swap contracts	$ —	$ 574	$ —
Forward interest rate contracts	$ —	$ —	$ (1)
Gains (losses) on fair value hedging relationships—interest rate swap agreements:			
Hedged items[1]	$ —	$ —	$ 127
Derivatives designated as hedging instruments	$ —	$ —	$ (85)

[1] (Losses) gains on hedged items do not completely offset gains (losses) on the related designated hedging instruments due to amortization of the cumulative amounts of fair value hedging adjustments included in the carrying amount of the hedged debt for discontinued hedging relationships.

No portions of our cash flow hedge contracts were excluded from the assessment of hedge effectiveness. As of December 31, 2019, we expected to reclassify $47 million of net gains on our foreign currency and cross-currency swap contracts out of AOCI and into earnings during the next 12 months.

Derivatives not designated as hedges

To reduce our exposure to foreign currency fluctuations in certain assets and liabilities denominated in foreign currencies, we enter into foreign currency forward contracts that are not designated as hedging transactions. Most of these exposures are hedged on a month-to-month basis. As of December 31, 2019, 2018 and 2017, the total notional amounts of these foreign currency forward contracts were$1.2 billion, $737 million and $757 million, respectively. Gains and losses recognized in earnings for our derivative instruments not designated as hedging instruments were not material for the years ended December 31, 2019, 2018 and 2017.

The fair values of derivatives included in the Consolidated Balance Sheets were as follows (in millions):

	Derivative assets		Derivative liabilities	
December 31, 2019	**Consolidated Balance Sheets locations**	**Fair values**	**Consolidated Balance Sheets locations**	**Fair values**
Derivatives designated as hedging instruments:				
Foreign currency contracts	Other current assets/ Other assets	$ 223	Accrued liabilities/ Other noncurrent liabilities	$ 31
Cross-currency swap contracts	Other current assets/ Other assets	66	Accrued liabilities/ Other noncurrent liabilities	315
Interest rate swap contracts	Other current assets/ Other assets	259	Accrued liabilities/ Other noncurrent liabilities	—
Total derivatives designated as hedging instruments		548		346
Derivatives not designated as hedging instruments:				
Foreign currency contracts	Other current assets	1	Accrued liabilities	—
Total derivatives not designated as hedging instruments		1		—
Total derivatives		$ 549		$ 346

	Derivative assets		Derivative liabilities	
December 31, 2018	**Consolidated Balance Sheets locations**	**Fair values**	**Consolidated Balance Sheets locations**	**Fair values**
Derivatives designated as hedging instruments:				
Foreign currency contracts	Other current assets/ Other assets	$ 181	Accrued liabilities/ Other noncurrent liabilities	$ 26
Cross-currency swap contracts	Other current assets/ Other assets	170	Accrued liabilities/ Other noncurrent liabilities	401
Interest rate swap contracts	Other current assets/ Other assets	56	Accrued liabilities/ Other noncurrent liabilities	149
Total derivatives designated as hedging instruments		407		576
Derivatives not designated as hedging instruments:				
Foreign currency contracts	Other current assets	1	Accrued liabilities	—
Total derivatives not designated as hedging instruments		1		—
Total derivatives		$ 408		$ 576

Our derivative contracts that were in liability positions as ofDecember 31, 2019, contain certain credit-risk-related contingent provisions that would be triggered if (i) we were to undergo a change in control and (ii) our, or the surviving entity's, creditworthiness deteriorates, which is generally defined as having either a credit rating that is below investment grade or a materially weaker creditworthiness after the change in control. If these events were to occur, the counterparties would have the right but not the obligation to close the contracts under early-termination provisions. In such circumstances, the counterparties could request immediate settlement of these contracts for amounts that approximate the then current fair values of the contracts. In addition, our derivative contracts are not subject to any type of master netting arrangement, and amounts due either to or from a counterparty under the contracts may be offset against other amounts due either to or from the same counterparty only if an event of default or termination, as defined, were to occur.

The cash flow effects of our derivative contracts in the Consolidated Statements of Cash Flows are included in Net cash provided by operating activities, except for the settlement of notional amounts of cross-currency swaps, which are included in Net cash used in financing activities.

19. Contingencies and commitments

Contingencies

In the ordinary course of business, we are involved in various legal proceedings, government investigations and other matters that are complex in nature and have outcomes that are difficult to predict. See Part I, Item 1A. Risk Factors—*Our business may be affected by litigation and government investigations.* We describe our legal proceedings and other matters that are significant or that we believe could become significant in this footnote.

We record accruals for loss contingencies to the extent that we conclude it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. We evaluate, on a quarterly basis, developments in legal proceedings and other matters that could cause an increase or decrease in the amount of the liability that has been accrued previously.

Our legal proceedings involve various aspects of our business and a variety of claims, some of which present novel factual allegations and/or unique legal theories. In each of the matters described in this filing, in which we could incur a liability, our opponents seek an award of a not-yet-quantified amount of damages or an amount that is not material. In addition, a number of the matters pending against us are at very early stages of the legal process, which in complex proceedings of the sort we face often extend for several years. As a result, none of the matters described in this filing, in which we could incur a liability, have progressed sufficiently through discovery and/or the development of important factual information and legal issues to enable us to estimate a range of possible loss, if any, or such amounts are not material. While it is not possible to accurately predict or determine the eventual outcomes of these matters, an adverse determination in one or more of these matters currently pending could have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Certain recent developments concerning our legal proceedings and other matters are discussed below:

Abbreviated New Drug Application (ANDA) Patent Litigation

KYPROLIS® (carfilzomib) ANDA Patent Litigation

Onyx Therapeutics, Inc. v. Cipla Limited, et al.

Between October 2016 and April 2018, Onyx Therapeutics, Inc. (Onyx Therapeutics, a wholly-owned subsidiary of Amgen), filed separate lawsuits in the U.S. District Court for the District of Delaware (the Delaware District Court) against: (1) Cipla Limited and Cipla USA, Inc. (collectively, Cipla); (2) Sagent Pharmaceuticals, Inc. (Sagent); (3) Breckenridge Pharmaceutical, Inc. (Breckenridge); and (4) Fresenius Kabi, USA LLC, Fresenius Kabi USA, Inc., Fresenius Kabi Pharmaceuticals Holding, Inc. and Fresenius Kabi Oncology Limited; (5) Teva Pharmaceuticals USA, Inc. and Teva Pharmaceutical Industries Ltd.; (6) MSN Laboratories Private Limited and MSN Pharmaceuticals, Inc. (collectively, MSN); (7) Dr. Reddy's Laboratories, Ltd. and Dr. Reddy's Laboratories, Inc. (collectively, DRL); (8) Qilu Pharma, Inc. and Qilu Pharmaceutical Co. Ltd. (collectively, Qilu); (9) Apotex Inc. and Apotex Corp. (Apotex); (10) InnoPharma, Inc. (InnoPharma); and (11) Aurobindo Pharma USA, Inc., each for infringement of one or more of our following patents, which are listed in the Approved Drug Products with Therapeutic Equivalence Evaluations (the Orange Book) for KYPROLIS®: U.S. Patent Nos. 7,232,818 (the '818 Patent), 7,417,042 (the '042 Patent), 7,491,704 (the '704 Patent), 7,737,112 (the '112 Patent), 8,129,346 (the '346 Patent), 8,207,125 (the '125 Patent), 8,207,126 (the '126 Patent), 8,207,127 (the '127 Patent) and 8,207,297 (the '297 Patent). Each of these lawsuits were based on each defendant's submission of an ANDA seeking U.S. Food and Drug Administration (FDA) approval to market a generic version of KYPROLIS®. In each lawsuit, Onyx Therapeutics sought an order of the Delaware District Court making any FDA approval of the respective defendant's ANDA effective no earlier than the expiration of the applicable patents.

The Delaware District Court consolidated these lawsuits for purposes of discovery into a single case, *Onyx Therapeutics, Inc. v. Cipla Limited, et al.*

In 2017, by stipulation with Onyx Therapeutics, Fresenius Kabi Pharmaceuticals Holding, Inc. and Fresenius Kabi Oncology Limited were dismissed from the lawsuit, leaving Fresenius Kabi, USA LLC and Fresenius Kabi USA, Inc. (collectively, Fresenius) as the remaining Fresenius defendants. In September 2017 and February 2018, respectively, by joint stipulation with Onyx Therapeutics, Teva Pharmaceutical Industries Ltd. and Teva Pharmaceuticals USA, Inc. were each dismissed from the lawsuit and in February 2018, Qilu was dismissed from the lawsuit by joint stipulation between Onyx Therapeutics and Qilu.

Between April and July of 2018, the Delaware District Court entered orders on stipulations between Onyx Therapeutics and each of Apotex, DRL, Sagent, Fresenius, Breckenridge, Aurobindo Pharma USA, Inc., Cipla and InnoPharma, respectively, that each defendant infringes the ’042, ’112, ’125, ’126 and ’127 Patents. Onyx Therapeutics provided those defendants, either through a stipulated order or other agreement, a covenant that it would not assert patent infringement of the ’818,’704,’346 and ’297 Patents against certain of the respective defendants’ ANDA applications and products. In June 2018, the Delaware District Court entered an order on a stipulation between Onyx Therapeutics and MSN that MSN infringes the ’112 Patent. In December 2018, Apotex, DRL, Fresenius, InnoPharma, Sagent, Breckenridge, Aurobindo Pharma USA, Inc. and Cipla amended their responses to the complaints to add the defense of unclean hands and to seek declarations of unenforceability of the asserted patents based on allegations of inequitable conduct. In January 2019, MSN amended its responses to the complaints to add the defense of unclean hands.

On January 11, 2019, Onyx Therapeutics filed a separate lawsuit in the Delaware District Court against Breckenridge for infringement of the ’042, ’112 and ’125 Patents in connection with its ANDA that seeks approval to market generic versions of KYPROLIS®. On March 4, 2019, the Delaware District Court entered an order on a stipulation between Onyx Therapeutics and Breckenridge, providing that Breckenridge infringes the asserted claims of the ’042, ’112 and ’125 Patents, and consolidated this lawsuit against Breckenridge into the existing consolidated case, *Onyx Therapeutics, Inc. v. Cipla Limited, et al*, for all purposes.

On May 6, 2019, the Delaware District Court commenced trial in the *Onyx Therapeutics, Inc. v. Cipla Limited, et al.* consolidated case. During trial, the Delaware District Court signed consent judgments filed by Onyx Therapeutics and each of Aurobindo Pharma USA, Inc., InnoPharma, Sagent, Apotex, Fresenius, DRL and Breckenridge, in which the parties stipulated to entry of: (1) judgment dismissing with prejudice all of the parties’ claims, counterclaims, affirmative defenses and demands; and (2) an injunction prohibiting infringement of the ’042, ’112 and ’125 Patents by the manufacture, use, sale, offer to sell or importation into the United States of the applicable defendant’s carfilzomib product unless specifically authorized pursuant to the applicable confidential settlement agreement. During trial, the Delaware District Court also entered a consent judgment between Onyx Therapeutics and MSN, in which the parties stipulated to entry of: (1) judgment dismissing with prejudice all of the parties’ claims, counterclaims, affirmative defenses and demands; and (2) an injunction prohibiting infringement of the ’112 Patent by the manufacture, use, sale, offer to sell or importation into the United States of MSN’s carfilzomib product unless specifically authorized pursuant to the confidential settlement agreement. On May 16, 2019, trial concluded between Onyx Therapeutics and the lone remaining defendant, Cipla. On January 17, 2020, the Delaware District Court issued an order advising the parties that the court expects to issue its post-trial opinion by, on or about, March 31, 2020.

Otezla® (apremilast) ANDA Patent Litigation

Celgene Corp. v. Sandoz Inc., et al.

Beginning in June 2018, Celgene filed 19 separate lawsuits in the U.S. District Court for the District of New Jersey (the New Jersey District Court) against Alkem Laboratories Ltd. (Alkem); Amneal Pharmaceuticals LLC; Annora Pharma Private Ltd. and Hetero USA Inc. (collectively, Hetero); Aurobindo Pharma Ltd. and Aurobindo Pharma USA Inc. (collectively, Aurobindo); Cipla Limited (Cipla Ltd); DRL; Emcure Pharmaceuticals Ltd. and Heritage Pharmaceuticals Inc. (collectively, Emcure); Glenmark Pharmaceuticals Ltd. (Glenmark); Macleods Pharmaceuticals Ltd. (Macleods); Mankind Pharma Ltd. (Mankind); MSN Laboratories Private Limited; Pharmascience Inc. (Pharmascience); Prinston Pharmaceutical Inc. (Prinston); Sandoz Inc.; Shilpa Medicare Ltd. (Shilpa); Teva Pharmaceuticals USA, Inc. and Actavis LLC (collectively, Actavis); Torrent Pharmaceuticals Ltd. (Torrent); Unichem Laboratories, Ltd. (Unichem); and Zydus Pharmaceuticals (USA) Inc., each for infringement of one or more of the following patents: U.S. Patent Nos. 6,962,940 (the ’940 Patent); 7,208,516 (the ’516 Patent); 7,427,638 (the ’638 Patent); 7,659,302 (the ’302 Patent); 7,893,101 (the ’101 Patent); 8,455,536 (the ’536 Patent); 8,802,717 (the ’717 Patent); 9,018,243 (the ’243 Patent) and 9,872,854 (the ’854 Patent), which are listed in the Orange Book for Otezla®. Each of the defendants is seeking to market a generic version of Otezla® before expiration of the asserted patents. The New Jersey District Court consolidated these 19 lawsuits for discovery and case management purposes into a single case, *Celgene Corp. v. Sandoz Inc., et al.* Each lawsuit seeks an order of the New Jersey District Court making any FDA approval of the respective defendant’s ANDA effective no earlier than the expiration of the applicable patents.

Between August 8, 2018 and August 30, 2018, Celgene filed amended complaints against Alkem, Amneal Pharmaceuticals LLC, Aurobindo, Cipla Ltd, DRL, Glenmark, Pharmascience, Sandoz Inc., Actavis, Unichem and Zydus Pharmaceuticals (USA) Inc. additionally asserting U.S. Patent No. 9,724,330 (the ’330 Patent), which is listed in the Orange Book for Otezla®. Between October 15 and November 27, 2018, Celgene filed amended complaints against Alkem, Amneal Pharmaceuticals LLC, Hetero, Aurobindo, Cipla Ltd, DRL, Emcure, Glenmark, Macleods, Mankind, MSN Laboratories Private Limited, Pharmascience, Prinston, Sandoz Inc., Actavis, Torrent, Unichem and Zydus Pharmaceuticals (USA) Inc. additionally asserting U.S. Patent No. 10,092,541 (the ’541 Patent), which is listed in the Orange Book for Otezla®. Between March 1, 2019 and April 4, 2019, Celgene filed amended complaints against Hetero, MSN Laboratories Private Limited and Emcure for infringement of one or more of the above-listed patents. On October 1, 2019, Celgene filed an amended complaint against Mankind for infringement of the ’940, ’302, ’536, ’243 and ’330 Patents. On October 8, 2019, Celgene filed a separate lawsuit against Zydus Pharmaceuticals (USA) Inc. in the New

Jersey District Court for infringement of U.S. Patent Nos. 8,093,283 (the ’283 Patent) and 8,629,173 (the ’173 Patent), which are not listed in the Orange Book for Otezla®. On December 19, 2019, the New Jersey District Court consolidated this lawsuit for discovery and case management purposes into the existing consolidated case, *Celgene Corp. v. Sandoz Inc., et al.*

Each defendant has filed an answer to the above-listed complaints and amended complaints disputing infringement and/or validity of the patents asserted against it. Along with their answers, each of Alkem, Hetero, Cipla Ltd, DRL, Emcure, Glenmark, Macleods, Mankind, Pharmascience, Sandoz Inc., Shilpa, Actavis, Torrent, Unichem and Zydus Pharmaceuticals (USA) Inc. filed declaratory judgment counterclaims asserting that some or all of the patents are not infringed and/or are invalid. In August 2019, based on a joint request by Celgene and Glenmark, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, having made, using, selling, offering to sell, importing, or distributing of Glenmark’s apremilast product during the term of the ’940, ’638, ’302, ’101, ’536, ’243, ’330 and’541 Patents, unless authorized pursuant to a confidential settlement agreement.

On December 20, 2019, following Amgen’s acquisition of the patents-in-suit and the new drug application for Otezla®, Amgen and Celgene jointly moved the New Jersey District Court for an order (1) substituting Amgen for Celgene for all purposes in this litigation; (2) terminating Celgene from this litigation; and (3) changing the consolidated case caption and all related actions to reflect Amgen as the sole plaintiff. Defendants have opposed the motion.

Sensipar® (cinacalcet) ANDA Patent Litigation

Amgen Inc. v. Amneal Pharmaceuticals LLC, et al. (formerly, Amgen Inc. v. Aurobindo Pharma Ltd. et al.) Consolidated Case

Beginning in September 2016, Amgen filed 14 separate lawsuits in the Delaware District Court for infringement of our U.S. Patent No. 9,375,405 (the ’405 Patent) against a number of manufacturers of purported generic versions of our Sensipar® product. In February 2017, the Delaware District Court consolidated these 14 lawsuits into a single case, *Amgen Inc. v. Aurobindo Pharma Ltd. et al.* In June 2017, Amgen filed an additional lawsuit in the Delaware District Court for infringement of the ’405 Patent which was consolidated into *Amgen Inc. v. Aurobindo Pharma Ltd. et al*. in August 2017. The ’405 Patent is entitled “Rapid Dissolution Formulation of a Calcium Receptor-Active Compound” and expires in 2026. All defendants responding to the complaint denied infringement and sought judgment that the ’405 Patent is invalid and/or not infringed.

Between September and November of 2017, Amgen filed, and the Delaware District Court signed, stipulated dismissals of the lawsuit against Micro Labs Ltd. and Micro Labs USA, Inc., and the lawsuit against Apotex, as well as consent judgments filed by Amgen and each of (1) Sun Pharma Global FZE, Sun Pharmaceutical Industries, Ltd. and Sun Pharmaceutical Industries, Inc. (collectively, Sun); (2) Ajanta Pharma Limited and Ajanta Pharma USA, Inc.; (3) Hetero USA Inc., Hetero Labs Ltd. and Hetero Labs Ltd. Unit V; and (4) Breckenridge. Each consent judgment stipulated to an entry of judgment of infringement and validity of the ’405 Patent and an injunction prohibiting the manufacture, use, sale, offer to sell, importation of or distribution into the United States of the respective defendant’s cinacalcet product during the term of the ’405 Patent unless specifically authorized pursuant to the confidential settlement agreement.

On March 5, 2018, the Delaware District Court commenced trial on the infringement claims and defenses in the*Amgen Inc. v. Aurobindo Pharma Ltd. et al.* consolidated lawsuit against the defendants that remained in the lawsuit, collectively consisting of (1) Watson Laboratories, Inc. and Actavis Pharma, Inc. (collectively, Watson); (2) Amneal Pharmaceuticals LLC and Amneal Pharmaceuticals of New York, LLC (collectively, Amneal); (3) Zydus Pharmaceuticals (USA) Inc. and Cadila Healthcare Ltd. (collectively, Zydus); and (4) Piramal Healthcare UK Limited (Piramal). Just prior to trial, the Delaware District Court signed consent judgments filed by Amgen and each of Cipla, and Strides Pharma Global Pte Limited and Strides Pharma, Inc. (collectively, Strides), and a consent judgment filed by Amgen and Aurobindo. In each consent judgment, the parties stipulated to an entry of judgment of infringement and validity of the ’405 Patent and an injunction prohibiting the manufacture, use, sale, offer to sell, importation of or distribution into the United States of the applicable defendant’s cinacalcet product during the term of the ’405 Patent unless specifically authorized pursuant to the applicable confidential settlement agreement. Just prior to trial, the Delaware District Court also entered orders dismissing each of DRL and Mylan Pharmaceuticals Inc. and Mylan Inc. (collectively, Mylan), on stipulations between Amgen and such parties, respectively, subject to the terms of confidential settlement agreements.

On July 27, 2018, the Delaware District Court issued a trial order finding on the infringement claims and defenses in the*Amgen Inc. v. Aurobindo Pharma Ltd. et al.* consolidated lawsuit that Zydus infringes the ’405 Patent and that Amneal, Piramal and Watson do not infringe the ’405 Patent. On August 24, 2018, the Delaware District Court issued an order dismissing, without prejudice, the invalidity counterclaims of Amneal, Piramal and Watson and entered judgment of noninfringement of the ’405 Patent in favor of Amneal, Piramal and Watson. On September 20, 2018, Amgen filed a notice of appeal to the U.S. Court of Appeals for the Federal Circuit (the Federal Circuit Court). On October 9, 2018, the Delaware District Court dismissed, without prejudice, the invalidity counterclaims of Zydus and entered judgment of infringement of the ’405 Patent by Zydus in favor of Amgen, including an order that the effective date of the FDA approval of Zydus’ generic version of Sensipar® shall be no earlier

than the expiry date of our ’405 Patent. On October 11, 2018, Zydus filed a notice of appeal to the Federal Circuit Court, and on October 24, 2018, the Federal Circuit Court consolidated the appeals of Zydus and Amgen.

In December 2018, the FDA approved Watson’s generic version of Sensipar® and Watson’s parent company, Teva Pharmaceutical Industries Ltd. (Teva), began selling its product at-risk notwithstanding that the appeals were pending at the Federal Circuit Court. On January 2, 2019, Amgen, Watson and Teva entered into a settlement agreement in which Teva agreed to stop selling its generic product until the mid-year 2021, or earlier under certain circumstances and to pay Amgen an undisclosed amount. On January 9, 2019, Watson and Amgen filed a motion asking the Delaware District Court to vacate its final judgment of noninfringement as to Watson and to enter a proposed consent judgment of infringement and validity of the ’405 Patent and an injunction prohibiting the making, having made, using, selling, offering to sell, or distributing Watson’s cinacalcet product in the United States or importing Watson’s cinacalcet product into the United States, consistent with the confidential settlement agreement. On January 11, 2019, the Federal Circuit Court stayed the pending appeal as to Watson in order for the Delaware District Court to rule on the motion of Watson and Amgen. On January 18, 2019 and January 23, 2019, respectively, Cipla and Sun filed oppositions to the motion of Watson and Amgen.

On March 19, 2019, Amgen filed an emergency motion for an injunction pending appeal, seeking an order from the Delaware District Court enjoining defendant Piramal from making, using, selling, offering for sale or importing its generic cinacalcet product. Amgen’s motion follows an announcement that Slate Run Pharmaceuticals LLC (Slate Run), in partnership with Piramal, had begun selling Piramal’s generic cinacalcet product at-risk notwithstanding the appeals pending at the Federal Circuit Court. On April 15, 2019, the Delaware District Court signed an order enjoining Piramal and Slate Run from selling their generic cinacalcet product until certain events occur related to a decision by the Federal Circuit Court on the parties’ appeal. The order has no effect on the product that Piramal and Slate Run had already sold to third parties.

On March 26, 2019, the Delaware District Court denied the joint motion for indicative ruling of Watson and Amgen. On April 10, 2019, Amgen filed an appeal to the Federal Circuit Court. On April 29, 2019, the Federal Circuit Court lifted the stay of Amgen’s appeal of the judgment of noninfringement as to Watson and consolidated it with Amgen’s appeal of the Delaware District Court’s denial of the joint motion for indicative ruling. On July 17, 2019, Amgen filed a motion requesting the Federal Circuit Court to vacate the Delaware District Court’s noninfringement judgment with respect to Watson and direct entry of the parties’ proposed consent judgment. On July 18, 2019, Cipla filed an opposition to Amgen’s motion and also moved to participate in the appeal as either an intervenor or as *amicus curiae*. On September 13, 2019, the Federal Circuit Court denied Amgen’s motion, lifted the stay of the briefing schedule which had been stayed pending disposition of Amgen’s motion to vacate and granted Cipla permission to file a brief as *amicus curiae.*

On January 7, 2020, the Federal Circuit Court issued an opinion affirming the judgment of noninfringement with respect to Piramal, affirming the judgment of infringement with respect to Zydus and vacating and remanding to the Delaware District Court for further consideration the judgment of noninfringement with respect to Amneal.

Amgen Inc. v. The ACME Laboratories Ltd.

On September 11, 2019, Amgen filed a lawsuit in the Delaware District Court against The ACME Laboratories Ltd. (ACME) for infringement of Amgen’s ’405 Patent. On November 20, 2019, the Delaware District Court signed a consent judgment filed by Amgen and ACME in which the parties stipulated to an entry of judgment of infringement and validity of the ’405 Patent and an injunction prohibiting the manufacture, use, sale, offer to sell, importation of or distribution into the United States of ACME’s cinacalcet product during the term of the ’405 Patent unless specifically authorized pursuant to the confidential settlement agreement.

ENBREL (etanercept) Patent Litigation

Immunex Corporation, et al. v. Samsung Bioepis Co., Ltd.

On April 30, 2019, two affiliates of Amgen Inc., Immunex Corporation and Amgen Manufacturing, Limited (collectively, Amgen), along with Hoffmann-La Roche Inc. (Roche), filed a lawsuit in the New Jersey District Court against Samsung Bioepis Co., Ltd. (Bioepis). This lawsuit stems from Bioepis’ submission of an application for FDA licensure of an etanercept product as biosimilar to Amgen’s ENBREL. Amgen and Roche have asserted infringement of five patents: U.S. Patent Nos. 8,063,182 (the ’182 Patent); 8,163,522 (the ’522 Patent); 7,915,225 (the ’225 Patent); 8,119,605 (the ’605 Patent); and 8,722,631 (the ’631 Patent). By their complaint, Amgen and Roche seek an injunction to prohibit Bioepis from commercializing its biosimilar etanercept product in the United States prior to the expiry of such patents. On August 5, 2019, defendant Bioepis responded to the complaint, denying infringement and seeking judgment that the patents-in-suit are invalid, unenforceable and/or not infringed. On January 9, 2020 and subject to the terms of a confidential stipulation and court order of January 6, 2020, the New Jersey District Court entered a consent injunction that prohibits Bioepis from making, using, offering to sell, selling or importing into the United States Bioepis’ etanercept product. Amgen and Bioepis entered into an agreement with respect to an injunction regarding etanercept as

set out in the New Jersey District Court's order of January 6, 2020. On January 15, 2020, the New Jersey District Court entered an order administratively staying the case pursuant to a joint request of Amgen and Bioepis.

Immunex Corporation, et al. v. Sandoz Inc., et al.

On February 26, 2016, two affiliates of Amgen Inc., Immunex Corporation and Amgen Manufacturing, Limited (collectively, Amgen), along with Hoffmann-La Roche Inc. (Roche), filed a lawsuit in the New Jersey District Court against Sandoz Inc., Sandoz International GmbH and Sandoz GmbH (collectively, Sandoz). This lawsuit stems from Sandoz's submission of an application for FDA licensure of an etanercept product as biosimilar to Amgen's ENBREL. Amgen and Roche have asserted infringement of five patents: the '182, '522, '225, '605 and '631 Patents. By their complaint, Amgen and Roche seek an injunction to prohibit Sandoz from commercializing its biosimilar etanercept product in the United States prior to the expiry of such patents. All Sandoz defendants responded by denying infringement and/or asserting that the patents at issue are invalid. On August 11, 2016, and subject to the terms of a confidential stipulation, the New Jersey District Court entered a preliminary injunction prohibiting Sandoz from making, using, importing, selling or offering for sale Sandoz's etanercept product. On August 30, 2016, the FDA approved Sandoz's Erelzi™, a biosimilar to ENBREL.

On September 10, 2018, the New Jersey District Court entered an order that the making, using, offering to sell or selling in the United States or the importation into the United States by Sandoz of Sandoz's biosimilar etanercept product infringes the '182 and '522 Patents. The New Jersey District Court held a bench trial from September 11, 2018 to September 25, 2018, focusing on Sandoz's challenges to the validity of these patents. On August 9, 2019, the New Jersey District Court issued its decision upholding the validity of the '182 and '522 Patents. On October 8, 2019, by stipulation of Amgen and Sandoz, the New Jersey District Court entered final judgment and a permanent injunction prohibiting Sandoz from making, using, importing, selling or offering for sale Sandoz's etanercept product, and, on the same day, Sandoz appealed the final judgment to the Federal Circuit Court. Following a motion by Sandoz, the Federal Circuit Court ordered an expedited briefing schedule for the appeal and briefing on appeal has been completed. Oral argument has been set for March 4, 2020.

Repatha® (evolocumab) Patent Litigation

Amgen Inc., et al. v. Sanofi, et al.

In October 2014, Amgen initiated a series of lawsuits that were consolidated by the Delaware District Court in December 2014 into a single case against Sanofi, Sanofi-Aventis U.S. LLC and Aventisub LLC, formerly doing business as Aventis Pharmaceuticals Inc. (collectively, Sanofi) and Regeneron Pharmaceuticals, Inc. (Regeneron), addressing seven of our patents: U.S. Patent Nos. 8,563,698; 8,829,165 (the '165 Patent); 8,859,741 (the '741 Patent); 8,871,913; 8,871,914; 8,883,983; and 8,889,834. These patents describe and claim monoclonal antibodies to proprotein convertase subtilisin/kexin type 9 (PCSK9). By its complaints, Amgen seeks an injunction to prevent the infringing manufacture, use and sale of Sanofi and Regeneron's alirocumab, a monoclonal antibody targeting PCSK9. On January 29, 2016, the Delaware District Court granted Amgen's motion to amend the complaint to add its affiliates, Amgen Manufacturing, Limited and Amgen USA Inc., as plaintiffs and to add the allegation that Sanofi and Regeneron's infringement of Amgen's patents is willful.

On February 22, 2016, the Delaware District Court entered a stipulated order finding alirocumab and the drug product containing it, PRALUENT®, infringe certain of Amgen's patents, including claims 2, 7, 9, 15, 19 and 29 of the '165 Patent and claim 7 of the '741 Patent. On March 18, 2016, the Delaware District Court entered judgment in favor of Amgen following a five-day jury trial and a unanimous jury verdict that these patent claims from the '165 Patent and the '741 Patent are all valid. On January 3, 2017, the Delaware District Court denied Sanofi and Regeneron's post-trial motions seeking a new trial and for judgment as a matter of law, and on January 5, 2017, granted Amgen's motion for a permanent injunction prohibiting the infringing manufacture, use, sale, offer for sale or import of alirocumab in the United States.

On January 12, 2017, Sanofi and Regeneron filed an appeal of the judgment and the permanent injunction to the Federal Circuit Court. On February 8, 2017, following a motion by Sanofi and Regeneron, the Federal Circuit Court entered a stay of the permanent injunction during the pendency of the appeal. On October 5, 2017, the Federal Circuit Court reversed in part the judgment of the Delaware District Court and remanded for a new trial two of the patent validity defenses (lack of written description and enablement of the claimed inventions), and affirmed the Delaware District Court's judgment of infringement of claims 2, 7, 9, 15, 19 and 29 of the '165 Patent and claim 7 of the '741 Patent and the third patent validity defense (finding that the claimed inventions were not obvious to a person of ordinary skill in the field of the patents).

On December 6, 2017, Amgen petitioned the Federal Circuit Court for rehearing *en banc*, which was denied. The Federal Circuit Court issued a March 2, 2018 mandate returning the case to the Delaware District Court for a new trial on two of Sanofi and Regeneron's challenges to the validity of our patents (lack of written description and enablement of the claimed inventions) and for further consideration of a permanent injunction. On July 23, 2018, Amgen filed a petition for certiorari with the U.S. Supreme Court seeking review of the Federal Circuit Court's conclusion that the judgment affirming the validity of Amgen's patents was based, in part, on an erroneous application of the law of written description. On January 7, 2019, the U.S. Supreme

Court denied Amgen's petition for certiorari. On remand, the Delaware District Court scheduled a new trial on Sanofi and Regeneron's challenges to the validity of our patents based on lack of written description and enablement of the claimed inventions. The Delaware District Court also entered judgment on the pleadings for Sanofi and Regeneron on Amgen's claim of willful infringement.

On February 25, 2019, a jury of the Delaware District Court unanimously upheld the validity of claims 19 and 29 of the '165 Patent and claim 7 of the '741 Patent. The jury also found that claims 7 and 15 of the '165 Patent meet the enablement requirement, but are invalid for failure to meet the written description requirement. On March 18, 2019, Sanofi and Regeneron filed post-trial motions seeking to reverse judgment as a matter of law or for a new trial with respect to claims 19 and 29 of the '165 Patent and claim 7 of the '741 Patent, and Amgen filed a motion for a permanent injunction. On June 6, 13 and 21, 2019, the Delaware District Court held evidentiary hearings on Amgen's motion for a permanent injunction against PRALUENT®. On August 28, 2019, the Delaware District Court ruled on the post-trial motions, denying Sanofi and Regeneron's request for a new trial and their request to reverse the jury verdict that the '165 Patent and the '741 Patent provide written description support for the claimed inventions. The Delaware District Court also ruled as a matter of law that claims 19 and 29 of the '165 Patent and claim 7 of the '741 Patent are invalid for failing to meet the enablement requirement, overturning the jury verdict. On October 23, 2019, Amgen filed a notice of appeal to the Federal Circuit Court.

Patent Disputes in the International Region

On February 24, 2016, the European Patent Office (EPO) granted European Patent No. 2,215,124 (EP 2,215,124) to Amgen. This patent describes and claims monoclonal antibodies to PCSK9 and methods of treatment. On February 24, 2016, Sanofi filed an opposition to the patent in the EPO seeking to invalidate it. In November 2016, Sanofi-Aventis Deutschland GmbH, Sanofi-Aventis Groupe S.A. and Sanofi Winthrop Industrie S.A. filed a joint opposition against Amgen's patent, and each of Eli Lilly and Company, Regeneron and Strawman Ltd. also filed oppositions to Amgen's patent. On November 30, 2018, the EPO confirmed the validity of Amgen's EP 2,215,124, which has been appealed to the Technical Board of Appeal. A two-day hearing is scheduled to begin on March 24, 2020.

We are also involved in and expect future involvement in additional disputes regarding our PCSK9 patents in other jurisdictions and regions, including matters filed against us and that we have filed in the United Kingdom, Germany, France, The Netherlands, Italy, Spain and Japan.

NEUPOGEN® (filgrastim)/Neulasta® (pegfilgrastim) Patent Litigation

Amgen Inc., et al. v. Accord BioPharma (formerly, Amgen Inc., et al. v. Apotex Inc., et al.)

On August 7, 2018, Amgen Inc. and its wholly-owned subsidiary, Amgen Manufacturing, Limited (collectively, Amgen), filed a lawsuit in the U.S. District Court for the Southern District of Florida (the Florida District Court) against Apotex for infringement of U.S. Patent No. 9,856,287 (the '287 Patent) in accordance with the patent provisions of the Biologics Price Competition and Innovation Act (BPCIA). This lawsuit stemmed from Apotex's submissions of applications for FDA licensure of a pegfilgrastim product as biosimilar to Amgen's Neulasta ® and a filgrastim product as biosimilar to Amgen's NEUPOGEN ®. By its complaint, Amgen sought, among other remedies, an injunction prohibiting Apotex from infringing the '287 Patent. On April 18, 2019, Apotex answered the complaint including counterclaims seeking declaratory judgments of noninfringement and invalidity. On August 27, 2019, the Florida District Court granted an unopposed motion to substitute Accord BioPharma in place of Apotex. On November 14, 2019, the parties entered into a settlement agreement resolving all issues between the parties. On November 15, 2019, the Florida District Court issued an order dismissing the case without prejudice.

Apotex PTAB Challenge

On February 17, 2017, the Patent Trial and Appeal Board (PTAB) of the U.S. Patent and Trademark Office (USPTO) granted Apotex's petition to institute inter partes review (IPR) proceeding of the of U.S. Patent No. 8,952,138 (the '138 Patent), challenging claims of the '138 Patent as unpatentable. On May 22, 2017, Amgen filed its response. The PTAB issued a final decision holding all but one claim of the '138 Patent as unpatentable, and on March 16, 2018, Apotex filed a request for rehearing. On May 20, 2019, the PTAB issued a decision denying Apotex's request for rehearing on the PTAB's finding and *sua sponte* amending the final decision with a finding that the one remaining claim in Amgen's '138 Patent is unpatentable. On July 22, 2019, Amgen filed a notice of appeal to the Federal Circuit Court with respect to all claims held to be unpatentable. On August 5, 2019, Apotex provided notice that it would not participate in the appeal. On September 16, 2019, the USPTO filed a notice of intervention on the appeal.

Amgen Inc., et al. v. Kashiv Biosciences, LLC, et al.

On March 8, 2018, Amgen Inc. and its wholly-owned subsidiary, Amgen Manufacturing, Limited (collectively, Amgen), filed a lawsuit in the New Jersey District Court against Kashiv Biosciences, LLC, formerly known as Adello Biologics, LLC (Kashiv). This lawsuit stemmed from Kashiv's submission of an application for FDA licensure of a filgrastim product as biosimilar to Amgen's NEUPOGEN ®. Amgen initially asserted infringement of 17 of our patents. Amgen sought an injunction to prohibit Kashiv from commercializing its biosimilar filgrastim product in the United States prior to the expiry of these patents. Following discovery in October 2018, Amgen filed a first amended complaint in the New Jersey District Court adding as defendants Amneal Pharmaceuticals LLC and Amneal Pharmaceuticals, Inc. and reducing the number of patents-in-suit from 17 to 4: U.S. Patent Nos. 8,940,878 (the '878 Patent); the '138 Patent; 9,643,997 (the '997 Patent); and the '287 Patent. Kashiv responded to the first amended complaint, seeking judgment that our patents-in-suit are not infringed by Kashiv's biosimilar filgrastim product and that our patents are invalid.

On November 20, 2019, Amgen and Kashiv entered into a settlement agreement resolving all issues between the parties in the New Jersey District Court and PTAB proceedings (discussed below). On November 25, 2019, the New Jersey District Court entered the dismissal of all claims and counterclaims without prejudice.

Apotex/Kashiv PTAB Challenge

On April 19, 2019, the PTAB instituted post grant proceedings against the '287 Patent in response to a petition filed by Apotex and Kashiv alleging the claimed invention is unpatentable. On October 4, 2019, the PTAB granted judgement adverse to Apotex and the review proceedings continued with Kashiv as the sole petitioner until December 6, 2019, when the PTAB dismissed the post grant review pursuant to the joint motion to terminate the proceeding due to settlement.

Kashiv PTAB Challenge

In a separate challenge, on September 11, 2019, the PTAB instituted IPR proceedings in response to a petition filed by Kashiv challenging the patentability of each claim of the '878 Patent and the '997 Patent. On December 6, 2019, pursuant to a joint motion to terminate the proceedings due to settlement, the PTAB dismissed the IPR proceedings.

Amgen Inc., et al. v. Pfizer Inc. et al.

On July 18, 2018, Amgen Inc. and its wholly owned subsidiary, Amgen Manufacturing, Limited (collectively, Amgen), filed a lawsuit in the Delaware District Court against Pfizer Inc. and Hospira Inc. (collectively, Pfizer). This lawsuit stems from Pfizer's submission of an application for FDA licensure of a filgrastim product as biosimilar to Amgen's NEUPOGEN®. Amgen has asserted infringement of the '997 Patent and seeks, among other remedies, injunctive relief to prohibit Pfizer from infringing the '997 Patent. On July 20, 2018, the FDA approved Pfizer's NIVESTYM ™, a biosimilar to NEUPOGEN®, which was subsequently launched in October 2018.

On August 9, 2018, Pfizer answered the complaint and counterclaimed seeking a declaration that Pfizer does not infringe Amgen's '997 Patent and that the patent is invalid. On March 22, 2019, Amgen filed an amended complaint against Pfizer in the Delaware District Court narrowing the patent claims at issue in the infringement dispute and adding a request for damages. On April 11, 2019, Pfizer answered Amgen's amended complaint including counterclaims seeking declaratory judgments of noninfringement and invalidity. Trial is scheduled to commence on June 15, 2020.

Amgen Inc., et al. v. Hospira Inc. et al.

On February 11, 2020, Amgen Inc. and its wholly owned subsidiary, Amgen Manufacturing, Limited (collectively, Amgen), filed a lawsuit in the Delaware District Court against Hospira, Inc. and Pfizer Inc. (collectively, Pfizer). This lawsuit stems from Pfizer's submission of an application for FDA licensure of a pegfilgrastim product as biosimilar to Amgen's Neulasta ®. Amgen has asserted infringement of U.S. Patent No. 8,273,707 (the '707 Patent) and seeks, among other remedies, injunctive relief to prohibit Pfizer from infringing the '707 Patent.

Fresenius PTAB Challenge

On June 8, 2019, Fresenius Kabi USA, LLC and Fresenius Kabi SwissBioSim GmbH filed a petition seeking to institute IPR proceeding before the PTAB to challenge the patentability of the '997 Patent. On December 10, 2019, the PTAB instituted the IPR proceeding.

In a separate action, on December 20, 2019, Fresenius Kabi USA, LLC and Fresenius Kabi SwissBioSim GmbH filed a petition seeking to institute IPR proceeding before the PTAB to challenge the patentability of the '287 Patent. Amgen's preliminary response is due in March 2020 after which the PTAB will have three months to render a decision on whether to institute trial proceedings.

Amgen Inc., et al. v. Tanvex BioPharma USA, Inc., et al.

On July 23, 2019, Amgen and its wholly owned subsidiary, Amgen Manufacturing, Limited, filed a lawsuit in the U.S. District Court for the Southern District of California (the California Southern District Court) against Tanvex BioPharma USA, Inc., Tanvex BioPharma, Inc. and Tanvex Biologics Corporation (collectively, Tanvex) for infringement of the ’287 Patent in accordance with the patent provisions of the BPCIA. This lawsuit stemmed from Tanvex’s submission of an application for FDA licensure of a filgrastim product as biosimilar to Amgen’s NEUPOGEN ®. By its complaint, Amgen sought, among other remedies, an injunction prohibiting Tanvex from infringing the ’287 Patent. On September 23, 2019, Tanvex responded to Amgen’s complaint, denying infringement and seeking judgment of noninfringement and invalidity of Amgen’s ’287 Patent. On December 17, 2019, Amgen and Tanvex entered into a settlement agreement resolving all issues between the parties. On December 20, 2019, the California Southern District Court dismissed all claims and counterclaims without prejudice.

EPOGEN® (epoetin alfa) Patent Litigation

Amgen Inc., et al. v. Hospira, Inc.

On September 18, 2015, Amgen Inc. and its wholly owned subsidiary, Amgen Manufacturing, Limited (collectively, Amgen), filed a lawsuit in the Delaware District Court against Hospira, Inc. (Hospira), a subsidiary of Pfizer Inc., for infringement of Amgen’s U.S. Patent Nos. 5,856,298 (the ’298 Patent) and 5,756,349 (the ’349 Patent) in accordance with the patent provisions of the BPCIA and for a declaration that Hospira has failed to comply with certain requirements of the BPCIA. This lawsuit stems from the submission by Hospira under the BPCIA of an application for FDA licensure of an epoetin product as biosimilar to Amgen’s EPOGEN®. By its complaint, Amgen seeks, among other remedies, an injunction prohibiting Hospira from using or selling infringing cells and/or product manufactured during the ’298 or the ’349 Patent terms and enjoining Hospira from commencing commercial marketing of any biosimilar epoetin product until a date that is at least 180 days after Hospira provides legally effective notice to Amgen. On August 19, 2016, Hospira responded to the complaint denying patent infringement and any violation of the BPCIA and seeking judgment that the patents-in-suit are invalid and not infringed by Hospira. On January 23, 2017, the Delaware District Court entered an order construing the claims of the ’349 and ’298 Patents and holding that two claims of the ’298 Patent are invalid for failure to properly narrow the claim on which they depend. On September 22, 2017, after a five-day trial, the jury returned a verdict finding the ’298 Patent valid and infringed by Hospira and the ’349 Patent not infringed. The jury awarded Amgen $70 million in damages for Hospira’s infringement. On October 23, 2017, Hospira moved for judgment as a matter of law of noninfringement and invalidity of the ’298 Patent or, in the alternative, for reduction of the damage award or a new trial on the ’298 Patent, which was denied on August 27, 2018. On May 15, 2018, the FDA approved Hospira’s RETACRIT ®, a biosimilar to EPOGEN®, which was subsequently launched on November 14, 2018. On September 11, 2018, the Delaware District Court entered final judgment.

On October 3, 2018, Hospira filed a notice of appeal to the Federal Circuit Court and on October 15, 2018, Amgen filed a notice of cross-appeal. On December 16, 2019, the Federal Circuit Court affirmed the final judgment of the Delaware District Court. On January 15, 2020, Hospira petitioned the Federal Circuit Court for rehearing *en banc.*

Litigation relating to our Biosimilar Products

AMJEVITA™ (adalimumab-atto)/AMGEVITA™ Patent Litigation

Coherus BioSciences, Inc. v. Amgen Inc.

On January 24, 2019, Coherus BioSciences, Inc. (Coherus) filed a lawsuit in the Delaware District Court that the formulation of AMJEVITA™ infringes three patents: U.S. Patent Nos. 10,155,039; 10,159,732; and 10,159,733. By its complaint, Coherus sought, among other remedies, injunctive relief prohibiting patent infringement. On April 18, 2019, Amgen responded to the lawsuit denying patent infringement and seeking judgment that the patents-in-suit are invalid, unenforceable and/or not infringed by Amgen. On November 26, 2019, the Delaware District Court entered a stipulated order dismissing Coherus’ infringement claims with prejudice and Amgen’s defenses and counterclaims as moot.

KANJINTI™ (trastuzumab-anns) Patent Litigation*

Genentech, Inc. v. Amgen Inc.

On June 21, 2018, Genentech Inc. (Genentech) and City of Hope filed a lawsuit in the Delaware District Court alleging Amgen's infringement of 37 patents by Amgen's submission of an application for FDA licensure of KANJINTI ™, Amgen's biosimilar version of Genentech's Herceptin® (trastuzumab). On July 19, 2018, Genentech, City of Hope and Amgen filed a joint stipulation to dismiss certain of the patents from the lawsuit and Genentech and City of Hope filed an amended complaint narrowing its allegations of infringement to 18 of the 37 patents. Among other remedies, Genentech and City of Hope seek injunctive relief prohibiting patent infringement. On August 23, 2018, Genentech and City of Hope moved to dismiss Amgen's unenforceability counterclaims and affirmative defense. On November 7, 2018, in accordance with the scheduling order issued by the Delaware District Court, Genentech and City of Hope reduced the number of asserted patents from 18 to 10. On January 17, 2019, Genentech and the City of Hope filed a second amended complaint that removedone of the remaining 10 asserted patents and added a different patent.

On July 10, 2019, Genentech filed a motion asking the Delaware District Court for a temporary restraining order and preliminarily injunction prohibiting Amgen from commercially launching, marketing or selling KANJINTI™ until the Delaware District Court renders a decision on the merits of Genentech's asserted U.S. Patent Nos. 6,627,196; 7,371,379; and 10,160,811. Following Amgen's opposition, on July 18, 2019, the Delaware District Court denied Genentech's motion. On July 19, 2019, Genentech filed a notice of appeal and a motion requesting the Federal Circuit Court to enter an injunction prohibiting Amgen from continuing with its launch of KANJINTI™ until final resolution of Genentech's appeal. On July 24, 2019, the Delaware District Court entered an order dismissing City of Hope as a party to the lawsuit and dismissing with prejudice Genentech's claims for infringement of a number of expired patents, leaving eight patents asserted by Genentech in the litigation. On August 7, 2019, the Federal Circuit Court denied Genentech's motion for an injunction pending appeal. Briefing of the appeal has been completed and argument has been scheduled for March 3, 2020. On September 4, 2019, Genentech filed its third amended complaint adding a demand for a jury trial and an award of damages for infringement. On September 23, 2019, the Delaware District Court ordered a stipulated dismissal with prejudice of all claims for infringement of certain asserted patents, leaving four patents asserted by Genentech in the litigation. On September 24, 2019, Amgen filed its answer to Genentech's third amended complaint denying infringement of any valid patent claim. The jury trial has been rescheduled to begin on April 20, 2020.

MVASI™ (bevacizumab-awwb) Patent Litigation*

Genentech, Inc. and City of Hope v. Amgen Inc.

On October 6 and October 18, 2017, Genentech and City of Hope filed separate lawsuits in the Delaware District Court respectively alleging Amgen's infringement of (i) 24 of the 27 patents listed by Genentech in the BPCIA exchange and (ii) 25 of the same 27 patents, in each case by Amgen's submission for FDA licensure of MVASI ™ as biosimilar to Genentech's Avastin® (bevacizumab) and for noncompliance with certain provisions of the BPCIA. On December 6, 2017, Genentech and City of Hope amended their complaints to allege that Amgen will also infringe newly issued U.S. Patent No. 9,795,672. On April 17, 2018, the Delaware District Court granted Amgen's motion to dismiss certain claims by Genentech and City of Hope that Amgen had not complied with the BPCIA.

Amgen responded to the complaints on May 1 and June 5, 2018, respectively, denying patent infringement and any violation of the BPCIA and seeking judgment that the patents-in-suit are invalid, unenforceable and/or not infringed by Amgen. On May 22 and June 19, 2018, respectively, Genentech and City of Hope moved to dismiss from each case all of Amgen's counterclaims and certain of Amgen's defenses.

On August 31, 2018, in accordance with the scheduling order issued by the Delaware District Court, Genentech and City of Hope reduced the number of asserted patents in each lawsuit to eight, asserting the same patents in each case. On October 22, 2018, thetwo cases were consolidated by the Delaware District Court. On August 22, 2019 and October 29, 2019, by stipulation of the parties, the Delaware District Court entered judgment of noninfringement, in each instance, with respect to one of the patents asserted in the consolidated lawsuit, leaving a total of six remaining patents asserted by Genentech in the litigation. Trial is scheduled to begin on November 30, 2020.

On February 11, 2020, the Delaware District Court granted Genentech's motion to dismiss Amgen's counterclaim seeking judgment that U.S. Patent Nos. 6,610,516 and 7,323,553 are invalid, unenforceable and not infringed based on the Court's finding that Genentech has represented that it does not plan to assert those patents against Amgen's MVASI ™ product. On February 12, 2020, the Delaware District Court denied Amgen's motion for leave to amend its answer, affirmative defenses and counterclaims to add affirmative defenses and counterclaims that U.S. Patent No. 8,574,869 is unenforceable for inequitable conduct and unclean hands. The Delaware District Court also denied Genentech's motion for leave to amend its complaint to add allegation of infringement of U.S. Patent No. 9,714,293.

* Registered in the United States.

Genentech, Inc. and City of Hope v. Immunex Rhode Island Corp. and Amgen Inc.

On March 29, 2019, Genentech and City of Hope filed a lawsuit against Amgen in the Delaware District Court alleging infringement of14 patents. All but two of the 14 patents asserted in this lawsuit have already been the subject of litigation pending among these parties in this court relating to Amgen's submission of the application that led to the FDA licensure of MVASI ™as biosimilar to Genentech's Avastin® (bevacizumab). Among other remedies, Genentech and City of Hope are seeking injunctive relief. On July 10, 2019, Genentech, alleging that Amgen's notice of commercial marketing pursuant to the BPCIA is insufficient, filed motions asking the Delaware District Court for a temporary restraining order and enforcement of the BPCIA to prohibit Amgen from commercially marketing MVASI™ until Amgen has provided new notice and waited until the expiry of the notice period. Following Amgen's opposition, on July 18, 2019, the Delaware District Court denied Genentech's motions. On July 19, 2019, Genentech filed a notice of appeal and a motion requesting the Federal Circuit Court to enter an injunction prohibiting Amgen from marketing MVASI ™ until final resolution of Genentech's appeal, which was denied on August 16, 2019. Briefing of the appeal has been completed.

Breach of Contract Action

Cipla Ltd. et al. v. Amgen Inc.

On January 8, 2019, Cipla filed a separate lawsuit in the Delaware District Court against Amgen seeking a declaration that provisions of its settlement agreement with Amgen have been triggered by Teva's at-risk launch of Watson's generic version of Sensipar ®, giving Cipla a right to market its own generic version under its settlement agreement with Amgen. Cipla's complaint also alleges antitrust violations by Amgen. The portions of the complaint covering Cipla's settlement agreement were filed with the court under seal and remain confidential.

On March 11, 2019, following an announcement by Cipla that it had begun selling its generic cinacalcet product in the United States, Amgen filed a counterclaim and related motion for preliminary injunction in the Delaware District Court. Amgen's motion seeks to prohibit Cipla from making, having made, using, selling, offering to sell or distributing its generic cinacalcet product in breach of the settlement agreement between the parties. On May 2, 2019, the Delaware District Court denied Amgen's motion for preliminary injunction, and Amgen filed its notice of appeal in the United States Court of Appeals for the Third Circuit (the Third Circuit Court of Appeals). On May 3, 2019, Amgen filed a motion for injunction pending appeal in the Delaware District Court, which was denied on May 9, 2019. On May 13, 2019, Amgen filed a motion for injunction pending appeal and expedited briefing in the Third Circuit Court of Appeals. On May 23, 2019, the Third Circuit Court of Appeals denied the motion for injunction pending appeal and granted the request for expedited briefing. On July 16, 2019, the Third Circuit Court of Appeals affirmed the Delaware District Court's decision denying Amgen's motion for a preliminary injunction. On October 15, 2019, Amgen moved to dismiss Cipla's antitrust and fraud claims brought in the Delaware District Court for lack of standing and failure to state a claim. On December 6, 2019, Cipla filed its response to Amgen's complaint and, on January 10, 2020, Amgen filed its response.

Novartis Pharma AG v. Amgen Inc.

On April 4, 2019, Amgen filed a lawsuit in the U.S. District Court for the Southern District of New York against Novartis Pharma AG seeking a declaratory judgment that Novartis Pharma AG materially breached two collaboration agreements related to the development and commercialization of Aimovig® (erenumab-aooe) due to Novartis Pharma AG's affiliate Sandoz Gmbh entering into a contract manufacturing agreement with Alder BioPharmaceuticals, Inc. (Alder) related to eptinezumab, an expected direct competitor to Aimovig® and entrant in the calcitonin gene-related peptide (CGRP)-related migraine therapy market. Amgen seeks to terminate its collaboration agreements with Novartis Pharma AG and also seeks damages from Novartis Pharma AG for breach of contract and negligent misrepresentation. Also on April 4, 2019, Novartis Pharma AG initiated a separate lawsuit against Amgen in the same court seeking declaratory judgment that Novartis Pharma AG, alternatively, did not materially breach the collaboration agreements or, even if it did breach the collaboration agreements, such breach was not material and has been cured, and that Amgen may not terminate the collaboration agreements. On April 8, 2019, Amgen answered Novartis Pharma AG's complaint and filed counterclaims seeking a declaratory judgment that Novartis Pharma AG materially breached the collaboration agreements due to its affiliate Sandoz Gmbh entering into the contract manufacturing agreement with Alder. In its counterclaim, Amgen seeks to terminate its collaboration agreements with Novartis Pharma AG and also seeks damages from Novartis Pharma AG for breach of contract and negligent misrepresentation. On July 16, 2019, Novartis Pharma AG filed an amended complaint adding a claim for breach of contract alleging Novartis Pharma AG is owed amounts associated with 2018 budget overruns and Amgen responded with a counterclaim alleging additional breaches by Novartis Pharma AG of the collaboration agreements. On September 17, 2019 and October 8, 2019, Novartis Pharma AG and Amgen, respectively, each filed its motion for judgment on the pleadings. Amgen was granted leave to file its amended counterclaims on February 3, 2020 and filed its Amended Answer to Novartis' First Amended Complaint and Second Amended Counterclaims for Affirmative Relief on February 4, 2020 to add a fraudulent inducement claim.

Antitrust Class Action

Sensipar® Antitrust Class Actions

From February 21, 2019, to April 10, 2019,four plaintiffs filed putative class action lawsuits against Amgen and various entities affiliated with Teva alleging anticompetitive conduct in connection with settlements between Amgen and manufacturers of generic cinacalcet product. Two of those actions were brought in the Delaware District Court, captioned *UFCW Local 1500 Welfare Fund v. Amgen Inc., et al.* (February 21, 2019) (Local 1500) and *Cesar Castillo, Inc. v. Amgen Inc., et al.* (February 26, 2019) (Castillo). The third action was brought in the New Jersey District Court, captioned *Teamsters Local 237 Welfare Fund, et al. v. Amgen Inc., et al.* (March 14, 2019) (Local 237) and the fourth action was brought in the U.S. District Court for the Eastern District of Pennsylvania (the Eastern Pennsylvania District Court), captioned *KPH Healthcare Services, Inc. a/k/a Kinney Drugs, Inc. v. Amgen Inc., et al* (April 10, 2019) (KPH).

Each of the lawsuits is brought on behalf of a putative class of direct or indirect purchasers of Sensipar® and alleges that the plaintiffs have overpaid for Sensipar® as a result of Amgen's conduct that allegedly improperly delayed market entry by manufacturers of generic cinacalcet products. The lawsuits focus predominantly on the settlement among Amgen, Watson and Teva of the parties' patent infringement litigation. Each of the lawsuits seeks, among other things, treble damages, equitable relief and attorneys' fees and costs. On April 10, 2019, the plaintiff in the KPH lawsuit filed a motion seeking to have the four lawsuits consolidated and designated as a multidistrict litigation (MDL) in the Eastern Pennsylvania District Court, and the plaintiff in the Local 1500 lawsuit filed a motion seeking to have the four lawsuits, along with *Cipla Ltd. v. Amgen Inc.*, consolidated and designated as a MDL in the Delaware District Court. On July 31, 2019, the MDL panel entered an order consolidating in the Delaware District Court the four class action lawsuits. On September 13, 2019, the plaintiffs filed amended complaints, and on October 15, 2019, Amgen filed its motion to dismiss both the direct purchaser plaintiffs' consolidated class action complaint and the indirect purchaser end payor plaintiffs' complaint. On December 6, 2019, the plaintiffs responded to Amgen's motion to dismiss and, on January 10, 2020, Amgen filed its response.

On February 6, 2020, an additional class action lawsuit was filed by MSP Recovery Claims against Amgen, Teva, Watson and Actavis also alleging anticompetitive conduct in connection with settlements between Amgen and manufacturers of generic cinacalcet product. This action was brought in the U.S. District Court for the Southern District of Florida, captioned *MSP Recovery Claims v. Amgen Inc., et al.*

Humira® Biosimilar Antitrust Class Actions

From March 18, 2019, to May 10, 2019,twelve purported class actions against Amgen, along with AbbVie Inc. and AbbVie Biotechnology Ltd. (collectively, AbbVie), were filed in the U.S. District Court for the Northern District of Illinois (the Illinois Northern District Court). The cases are captioned: *UFCW Local 1500 Welfare Fund v. AbbVie Inc., et al.* (March 18, 2019) (Local 1500); *Fraternal Order of Police, Miami Lodge 20, Insurance Trust Fund v. AbbVie Inc., et al.* (March 20, 2019); *Mayor and City Council of Baltimore v. AbbVie Inc., et al.* (March 22, 2019); *Pipe Trades Services MN Welfare Fund v. AbbVie Inc., et al.* (March 29, 2019); *St. Paul Electrical Workers' Health Plan v. AbbVie Inc., et al.* (March 29, 2019); *Welfare Plan of the International Union of Operating Engineers Locals 137, 137A, 137B, 137C and 137R v. AbbVie Inc., et al.* (April 1, 2019); *Law Enforcement Health Benefits, Inc. v. AbbVie, Inc., et al.* (April 9, 2019) (Law Enforcement); *Kentucky Laborers District Council Health and Welfare Fund v. AbbVie, Inc., et al.* (April 16, 2019); *Sheet Metal Workers' Local Union No. 28 Welfare Fund v. AbbVie, Inc., et al.* (April 19, 2019) (Sheet Metal Workers'); *Locals 302 & 612 of The International Union of Operating Engineers-Employers Construction Industry Health And Security Trust Fund v. AbbVie Inc., et al.* (April 25, 2019) (Construction Industry); *Louisiana Health Service & Indemnity Co., d/b/a Blue Cross and Blue Shield of Louisiana and HMO Louisiana, Inc. v. AbbVie Inc., et al.* (April 30, 2019) (Louisiana Health); and *Cleveland Bakers and Teamsters Health and Welfare Fund v. AbbVie Inc., et al.* (May 10, 2019) (Cleveland Bakers) collectively, Humira® Antitrust Class Actions).

In each of the Humira® Antitrust Class Actions, the plaintiffs bring federal antitrust claims along with various state law claims under common law and antitrust, consumer protection and unfair competition statutes. In each case, the plaintiffs specifically allege that AbbVie has unlawfully monopolized the alleged market for Humira® and biosimilars of Humira®, including by creating an allegedly unlawful so-called patent thicket around Humira®. In the Local 1500, Sheet Metal Workers' and Construction Industry cases, the plaintiffs further allege that AbbVie entered into allegedly unlawful market division agreements with Amgen and other companies that had developed Humira® biosimilars, including Bioepis, Mylan, Sandoz, Inc., Fresenius Kabi USA, LLC, Pfizer Inc. and Momenta Pharmaceuticals, Inc., in connection with the settlement of patent litigation relating to Humira®, whereby Amgen and the other defendants that have developed Humira® biosimilars were permitted to market those products in Europe as early as October 2018, while remaining off the market in the United States until 2023. In each of the Humira® Antitrust Class Actions other than the Local 1500 and Construction Industry cases, the plaintiffs allege that AbbVie and Amgen entered into an allegedly unlawful settlement agreement under which Amgen allegedly agreed to delay its entry into the U.S. market with AMGEVITA ™, its Humira® biosimilar, in exchange for an alleged promise of exclusivity as the sole Humira® biosimilar in that market for five months, beginning in January 2023. In each of the Humira® Antitrust Class Actions, plaintiffs seek injunctive relief, treble damages

and attorney's fees on behalf of a putative class of third-party payers and/or consumers that have indirectly purchased, paid for or provided reimbursement for Humira® in the United States. Defendants' responses to the first six complaints were stayed by the court. On June 4, 2019, the Illinois Northern District Court entered an order consolidating the twelve purported class action cases for pre-trial purposes and on June 13, 2019, entered an order requiring the plaintiffs to file a consolidated complaint by August 12, 2019. On August 9, 2019, the plaintiffs filed their consolidated complaint in the Illinois Northern District Court. The consolidated class action complaint names as defendants Amgen, along with AbbVie, Bioepis, Sandoz, Inc. and Fresenius Kabi USA LLC. On October 11, 2019, the defendants filed a joint motion to dismiss the consolidated complaint (as well as brief individual motions), challenging the legal sufficiency of the plaintiffs' allegations to state any claim for relief under the law. On November 19, 2019, plaintiffs filed their opposition to the motion to dismiss. On December 20, 2019, defendants filed their reply in support of the motion to dismiss. No argument date has been set.

Commitments – U.S. repatriation tax

Under the 2017 Tax Act, we elected to pay in eight annual installments the repatriation tax related primarily to prior indefinitely invested earnings of our foreign operations. See Note 6, Income taxes. The following table summarizes the remaining scheduled repatriation tax payments as of December 31, 2019 (in millions):

	Amounts
2020	$ 587
2021	587
2022	587
2023	1,100
2024	1,467
Thereafter	1,834
Total remaining U.S. repatriation tax commitments	$ 6,162

20. Quarterly financial data (unaudited)

The following tables summarize the Company's unaudited financial data on a quarterly basis. The sum of the quarterly earnings per-share amounts may not equal the amount reported for the full year because per-share amounts are computed independently for each quarter and for the full year based on respective weighted-average shares outstanding and dilutive securities.

Quarterly financial data is summarized as follows (in millions, except per-share data):

	2019 Quarters ended			
	December 31	September 30	June 30	March 31
Product sales	$ 5,881	$ 5,463	$ 5,574	$ 5,286
Gross profit from product sales	$ 4,628	$ 4,427	$ 4,562	$ 4,231
Net income	$ 1,703	$ 1,968	$ 2,179	$ 1,992
Earnings per share:				
Basic	$ 2.87	$ 3.29	$ 3.59	$ 3.20
Diluted	$ 2.85	$ 3.27	$ 3.57	$ 3.18

	2018 Quarters ended			
	December 31	September 30	June 30	March 31
Product sales	$ 6,001	$ 5,510	$ 5,679	$ 5,343
Gross profit from product sales	$ 4,905	$ 4,473	$ 4,655	$ 4,399
Net income	$ 1,928	$ 1,859	$ 2,296	$ 2,311
Earnings per share:				
Basic	$ 3.04	$ 2.88	$ 3.50	$ 3.27
Diluted	$ 3.01	$ 2.86	$ 3.48	$ 3.25

21. Subsequent events

On January 2, 2020, Amgen acquired a 20.5% stake in BeiGene, Ltd. (BeiGene) for approximately $2.8 billion in cash as part of a collaboration to expand our oncology presence in China. We will account for this investment by using the equity method. Under the collaboration, BeiGene will commercialize XGEVA ®, KYPROLIS® and BLINCYTO® (blinatumomab) in China, and we will share profits and losses equally during the initial product-specific commercialization periods; thereafter, two of these products will revert to Amgen, and Amgen will pay royalties to BeiGene on sales in China of such products for a specified period.

In addition, Amgen and BeiGene will jointly develop 20 of our oncology product candidates, with BeiGene sharing in global R&D costs of up to $1.25 billion and assuming commercialization rights in China for a specified period. Amgen and BeiGene will share profits in China equally until certain of these product rights revert to Amgen. After reversion, Amgen will pay royalties to BeiGene on sales in China for a specified period. For product sales outside of China, Amgen will pay BeiGene royalties.

SCHEDULE II

AMGEN INC.

VALUATION AND QUALIFYING ACCOUNTS

Years ended December 31, 2019, 2018 and 2017

(In millions)

Allowance for doubtful accounts	Balance at beginning of period	Additions charged to costs and expenses	Other additions	Deductions	Balance at end of period
Year ended December 31, 2019	$ 48	$ —	$ —	$ 22	$ 26
Year ended December 31, 2018	$ 51	$ 1	$ —	$ 4	$ 48
Year ended December 31, 2017	$ 51	$ 4	$ —	$ 4	$ 51

AMENDMENT NO. 2 TO THE ASSET PURCHASE AGREEMENT

This AMENDMENT NO. 2 TO THE ASSET PURCHASE AGREEMENT dated as of October 17, 2019 (this "Amendment") is by and between CELGENE CORPORATION, a Delaware corporation ("Seller"), and AMGEN INC., a Delaware corporation ("Purchaser") (each of Seller and Purchaser, a "Party", and collectively, the "Parties").

RECITALS

WHEREAS, Seller and Purchaser are each a party to that certain Asset Purchase Agreement dated as of August 25, 2019, as amended by that certain Amendment No. 1 to the Asset Purchase Agreement, dated as of October 17, 2019, by and between Seller and Purchaser (as may be further amended, supplemented or otherwise modified from time to time in accordance with its terms, the "Asset Purchase Agreement" or "APA"); and

WHEREAS, Seller and Purchaser desire to amend the APA as set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and intending to be legally bound, the Parties hereby agree as follows:

1. Definitions. Capitalized terms used but not otherwise defined in this Amendment shall have the meaning ascribed to them in the APA.

2. Form of Supply Agreement Amendment.

(a) The Parties hereby agree that Section 1(a) (Definitions) of the Supply Agreement shall include the "Supply Failure" definition set forth below:

"*Supply Failure*" has the meaning set forth in Section 14(a)(iii).

(b) The Parties hereby agree that Section 14(a) (Indemnification) of the Supply Agreement shall read in its entirety as set forth on Annex A attached to this Amendment.

(c) The Parties hereby agree that Section 15 (Limitation of Liability) of the Supply Agreement shall read in its entirety as set forth on Annex B attached to this Amendment.

3. Form of Toll Manufacturing Agreement Amendment.

(a) The Parties hereby agree that Section 1(a) (Definitions) of the Toll Manufacturing Agreement shall include the "Supply Failure" definition set forth below:

"*Supply Failure*" has the meaning set forth in Section 14(a)(iii).

(b) The Parties hereby agree that Section 14(a) (Indemnification) of the Toll Manufacturing Agreement shall read in its entirety as set forth on Annex C attached to this Amendment.

(c) The Parties hereby agree that Section 15 (Limitation of Liability) of the Toll Manufacturing Agreement shall read in its entirety as set forth on Annex D attached to this Amendment.

4. Miscellaneous.

(a) Except as amended, supplemented or otherwise modified hereby, the APA shall continue in full force and effect pursuant to its terms. In the event of any conflict between the provisions of this Amendment, on the one hand, and the provisions of the APA, on the other hand, the provisions of this Amendment shall control. Upon the effectiveness of this Amendment, each reference in the APA to "this Agreement", "hereof", "hereunder", "herein", or words of like import referring to the APA shall be deemed to refer to the APA, as amended, supplemented or otherwise modified by this Amendment, provided that, for clarity, references in the APA to "as of the date hereof" or "as of the date of this Agreement" or words of like import shall continue to refer to August 25, 2019. Upon the effectiveness of this Amendment, any reference to the APA in the Ancillary Agreements shall be deemed to refer to the APA, as amended, supplemented or otherwise modified by this Amendment. This Amendment is incorporated into and made a part of the APA.

(b) The execution, delivery and effectiveness of this Amendment shall not constitute a waiver or amendment of any provision of the APA, except as specifically set forth herein. Except as herein expressly amended, all of the terms, conditions and provisions of the APA and any of the documents, schedules or exhibits referred to therein shall remain in full force and effect.

(c) The provisions set forth in Section 11.1 (Interpretation; Absence of Presumption), Section 11.2 (Headings; Definitions), Section 11.3 (Governing Law; Jurisdiction and Forum; Waiver of Jury Trial), Section 11.5 (No Third-Party Beneficiaries), Section 11.8 (Binding Effect; Successors and Assigns), Section 11.9 (Amendments and Waivers), Section 11.10 (Severability) and Section 11.15 (Counterparts; Effectiveness) of the APA are hereby incorporated into, and shall apply to, this Amendment, *mutatis mutandis.*

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, this Amendment has been signed by or on behalf of each of the Parties as of the day first above written.

CELGENE CORPORATION

By: /s/ Mark J. Alles
Name: Mark J. Alles
Title: Chairman and Chief Executive Officer

AMGEN INC.

By: /s/ Jonathan Graham
Name: Jonathan Graham
Title: Senior Vice President, General Counsel and Secretary

Annexes Omitted from Amendment No. 2 to the Asset Purchase Agreement

Pursuant to Regulation S-K, Item 601(b)(2), the annexes to Amendment No. 2 to the Asset Purchase Agreement, as listed below, have not been filed. The Registrant agrees to furnish supplementally a copy of any omitted annexes to the Securities and Exchange Commission upon request; provided, however, that the Registrant may request confidential treatment of omitted items.

Annexes

Annex A Section 14(a) of the Supply Agreement
Annex B Section 15 of the Supply Agreement
Annex C Section 14(a) of the Toll Manufacturing Agreement
Annex D Section 15 of the Toll Manufacturing Agreement

November 21, 2019

Amgen Inc.
One Amgen Center Drive,
Thousand Oaks, California 91320
Attention: General Counsel

Copy to

Sullivan & Cromwell LLP
125 Broad Street,
New York, NY 10004
Attention: Francis J. Aquila; Matthew G. Hurd

Re: Letter Agreement re: Treatment of Certain Product Inventory

Ladies and Gentlemen:

Reference is made to that certain Asset Purchase Agreement, dated as of August 25, 2019 (as amended from time to time, the "APA"), by and between Amgen Inc., a Delaware corporation ("Purchaser"), and Celgene Corporation, a Delaware corporation ("Seller"). Capitalized terms used and not otherwise defined herein have the respective meanings ascribed to them in the APA.

This letter agreement (this "Letter Agreement") confirms the understanding between the parties hereto that, from and after the Closing, legal title to and economic ownership of any Product Inventory will transfer in a manner that is consistent with the provisions herein.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and notwithstanding anything in the APA or any of the Ancillary Agreements to the contrary, the parties hereto hereby agree as follows:

1. Product Inventory. For purposes of clarity, references to "Excluded Inventory" in the APA and the Ancillary Agreements shall be replaced with references to "Supply Inventory". Notwithstanding anything to the contrary in the APA, the definition of "Product Inventory" in Section 1.1 of the APA shall include Supply Inventory Related to the Program Business and that is owned by Seller or one of its Affiliates.

2. Financial Statements. Section 3.4 (Financial Statements and Financial Matters) of the Seller Disclosure Schedule is replaced in its entirety by Exhibit A attached hereto.

3. Transfer Trigger Event. With respect to Section 2.1(f) of the APA, at and following the Closing, the Asset Selling Entities and their Affiliates shall retain title to any Product Inventory owned by an Asset Selling Entity as of the Closing until the earlier of (i) the sale or other disposition of such Product Inventory as directed by and for the benefit of Purchaser or its relevant Affiliates (in accordance with the Transition Services Agreement) and (ii) the relevant Transfer Trigger Event (as defined in Exhibit B attached hereto), at which point title to such Product Inventory shall automatically transfer to Purchaser or its relevant Affiliates; provided, further, that, at Closing, Seller shall, and shall cause the other Asset Selling Entities to, transfer to Purchaser or any of its designated Affiliates all control over, and all rights to the economic benefits, obligations and liabilities with respect to, all Product Inventory (it being understood and agreed that Purchaser's obligations under Section 2.5 of the APA (Risk of Loss) shall apply at and after the Closing with respect to all Product Inventory).

4. Transitionary Arrangement. Pursuant to Section 3 of this Letter Agreement, with respect to Section 2.1(f) of the APA, at and following the Closing, each Asset Selling Entity shall retain title to any Product Inventory it owns as of the Closing until the earlier of (i) the sale or other disposition of such Product Inventory as directed by and for the benefit of the APA Purchaser or its relevant Affiliates (in accordance with the Transition Services Agreement) and (ii) the relevant Transfer Trigger Event, at which point title to such Product Inventory shall automatically transfer to Purchaser or its relevant Affiliate identified on Exhibit C hereto; provided, however, that at Closing, each Asset Selling Entity shall transfer (x) to Purchaser all control over, and all rights to the economic benefits, obligations and liabilities with respect to, all Product Inventory physically located in the United States, and (y) to Amgen (Europe) GmbH, a limited liability company incorporated under the laws of Switzerland ("Amgen Swiss"), all control over, and all rights to the economic benefits, obligations and liabilities with respect to, all Product Inventory physically located in a jurisdiction outside of the United States (it being understood and agreed that Purchaser's obligations under Section 2.5 (Risk of Loss) of the APA (as delegated to Amgen Swiss with respect to Product Inventory physically located in a jurisdiction outside of the United States, pursuant to Section 11.8 of the APA) shall apply at and after the Closing with respect to all Product Inventory). For clarity, upon transfer of title to Product Inventory to Purchaser or its relevant Affiliate identified on Exhibit C hereto in accordance with this Letter Agreement, all control over, and all rights to the economic benefits, obligations and liabilities with respect to such Product Inventory shall transfer to Purchaser or its relevant Affiliate identified on Exhibit C hereto.

5. Indirect Tax Procedure. Each Asset Selling Entity will remit Indirect Taxes to the proper Indirect Tax authorities to comply with applicable Law. To the extent that any Indirect Taxes are required to be paid and/or assessed in connection with (A) a sale or other disposition of any Product Inventory pursuant to clause (i) of Section 4 of this Letter Agreement, each Asset Selling Entity shall be entitled to charge the applicable purchaser of such Product Inventory the amount of any such Indirect Taxes, or (B) the transfer to Purchaser or its relevant Affiliate of title to any Product Inventory upon the relevant Transfer Trigger Event pursuant to clause (ii) of Section 4 of this Letter Agreement, then Purchaser or its relevant Affiliate will pay applicable Indirect Taxes, including those charged according to EU VAT Directive (2006/112/EC) or similar local applicable Law, required to be paid to each Asset Selling Entity with respect to such Product Inventory upon receipt of a valid invoice reflecting any such Indirect Tax, it being understood by the Parties that (x) the Purchaser or its relevant Affiliate will be able to fully recover any such Indirect Taxes (through credit, offset, refund or otherwise) and not pay over to the relevant Asset Selling Entity, any such recovery described in this Section 5, and (y) if the Purchaser or its relevant Affiliate is not able to fully recover any such Indirect Taxes as described in (x), Seller or the relevant Asset Selling Entity shall promptly pay over to Purchaser or its relevant Affiliate fifty percent (50%) of the unrecoverable portion of such Indirect Tax that was paid by Purchaser or its relevant Affiliate to the relevant Asset Selling Entity, consistent with Section 7 of this Letter Agreement and Section 7.6(b)(i) of the APA, according to the indemnity procedures under the APA.

6. Indirect Tax Corrections. The following paragraphs describe procedures for circumstances in which the Asset Selling Entity incorrectly assumes that no Indirect Taxes are chargeable on the transfer of Product Inventory, or that Indirect Taxes are chargeable on the Transfer of Product Inventory. The principles in Section 7 of this Letter Agreement shall apply in all cases where applicable Law allows Indirect Taxes to be recovered and reclaimed, and nothing in this Letter Agreement shall be interpreted to suggest an outcome inconsistent with Section 7.6(b)(i) of the APA.

(a) To the extent it is incorrectly assumed by the Asset Selling Entity that no Indirect Taxes are chargeable on the transfer of Product Inventory, the Parties will cooperate in retroactively correcting measures. To the extent required by applicable Law or the immediately preceding sentence, the Asset Selling Entity shall issue (or shall cause to be issued) a correcting invoice with respect to the transfer of the Product Inventory in accordance with applicable Law, and shall reasonably cooperate with

the Purchaser or its relevant Affiliate to provide information and documentation necessary for Purchaser or its relevant Affiliate to comply with its Indirect Tax obligations under applicable Law. Purchaser shall (and shall cause its Affiliates to) use commercially reasonable efforts to recover (through credit, offset, refund or otherwise) any Indirect Taxes incurred in connection with this Agreement and the transactions contemplated thereby, it being understood by the Parties that if the Purchaser or its relevant Affiliate is not able to fully recover any such Indirect Taxes, Seller or the relevant Asset Selling Entity shall promptly pay over to Purchaser or its relevant Affiliate fifty percent (50%) of the unrecoverable portion of such Indirect Tax suffered by the Purchaser or its relevant Affiliate, consistent with Section 7 of this Letter Agreement and Section 7.6(b)(i) of the APA.

(b) To the extent it is incorrectly assumed by the Asset Selling Entity that Indirect Taxes are chargeable on the transfer of Product Inventory, the Parties will cooperate to implement retroactively correcting measures. To the extent required by applicable Law or the immediately preceding sentence, the Asset Selling Entity shall issue (or shall cause to be issued) a correcting invoice with respect to the transfer of the Product Inventory in accordance with applicable Law, and shall reasonably cooperate with the Purchaser or its relevant Affiliate to provide information and documentation necessary for Purchaser or its relevant Affiliate to comply with its Indirect Tax obligations under applicable Law. The Asset Selling Entity shall (and shall cause its Affiliates to) (i) use commercially reasonable efforts to reclaim (through credit, offset, refund or otherwise) any Indirect Taxes incurred in connection with this Agreement and the transactions contemplated hereby, it being understood by the Parties that if the Asset Selling Entity is not able to fully reclaim any such Indirect Taxes, Purchaser or its relevant affiliate shall promptly pay over to Seller or its relevant Affiliate fifty percent (50%) of the unreclaimable portion of such Indirect Tax suffered by the Asset Selling Entity, consistent with Section 7 of this Letter Agreement and Section 7.6(b)(i) of the APA.

7. Indirect Tax Sharing. Pursuant to Section 7.6(b)(i) of the APA, any Indirect Taxes suffered by the Parties in connection with the APA, this Letter Agreement and the transactions contemplated thereby and hereby (other than with respect to any Product Inventory which is processed for and supplied to Purchaser or any of its Affiliates pursuant to the Supply Agreement

and the Toll Manufacturing Agreement, with respect to which Indirect Taxes will be borne as provided in those agreements) and which are not able to be fully recovered or reclaimed shall be borne fifty percent (50%) by Purchaser or its relevant Affiliates and fifty percent (50%) by the Seller or relevant Asset Selling Entities. For clarity, the Purchaser and/or its Affiliates, on the one hand, and any affected Asset Selling Entity, on the other, shall each bear fifty percent (50%) of the Indirect Taxes which are not able to be fully recovered or reclaimed only with respect to the Product Inventory (other than Supply Inventory) owned by any Asset Selling Entity at Closing and at the relevant Transfer Trigger Event. (For further clarity, in the case of Product Inventory transferred at the time of the Transfer Trigger Event, the parties will attempt to specifically identify which Product Inventory is transferred pursuant to the APA and which Product Inventory is transferred pursuant to the Supply Agreement or the Toll Manufacturing Agreement; if such specific identification is impractical then the parties agree to apply a FIFO method. In any case, the parties agree that the result of this accounting exercise cannot result in a greater amount of Product Inventory treated as transferred pursuant to the APA than the amount of Product Inventory beneficially transferred at Closing.)

8. No Other Changes. Except as modified by this Letter Agreement, the APA and the Ancillary Agreements shall remain and continue in full force and effect. To the extent of any conflict or inconsistency between the terms of this Letter Agreement, on the on hand, and the APA or any Ancillary Agreement, on the other hand, the terms of this Letter Agreement shall prevail.

9. Reservation of Rights. Except as explicitly contemplated by this Letter Agreement, this Letter Agreement shall not be deemed to be a waiver of any rights or remedies of any Parties under the APA, which are expressly reserved.

10. Counterparts; Electronic Signatures. This Letter Agreement may be executed in any number of counterparts, each of which will be deemed an original, with the same effect as if the signature on each such counterpart were on the same instrument. Further, this Side Letter may be executed by transfer of an originally signed document by facsimile, electronic or e-mail in PDF format, each of which will be as fully binding as an original document.

[*Signature page follows*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE AB

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE AB

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE APS.

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Member of the Board of Directors

By: /s/ David Pignolet

Name: David Pignolet

Title: Member of the Board of Directors

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE AS

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE BV

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE CHEMICALS SARL

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

Very truly yours,

CELGENE CORPORATION

By: /s/ Matthew Roden

Name: Matthew Roden

Title: President

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE DOO

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE DISTRIBUTION BV

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE EUROPE BV

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE GMBH

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Managing Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE GMBH

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE INC

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Manager

By: /s/ David Pignolet

Name: David Pignolet

Title: Manager

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE INTERNATIONAL HOLDINGS CORPORATION, PODRUŽINICA V SLOVENIJI

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

CELGENE INTERNATIONAL HOLDINGS CORPORATION

By: /s/ Katherine Kelly

Name: Katherine Kelly

Title: Secretary

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE INTERNATIONAL II SARL

By: /s/ Nakisa Serry
Name: Nakisa Serry
Title: Managing Director

By: /s/ David Pignolet
Name: David Pignolet
Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

CELGENE INTERNATIONAL INC.

By: /s/ Katherine Kelly

Name: Katherine Kelly

Title: Secretary

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE INTERNATIONAL SARL

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Managing Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE K.K

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE KORLÁTOLT FELELÖSSÉGÜ
TÁRSASÁG

By: /s/ Nakisa Serry
Name: Nakisa Serry
Title: Managing Director

By: /s/ David Pignolet
Name: David Pignolet
Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE LIMITED

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE LIMITED

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE LOGISTICS SARL

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Managing Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE MANAGEMENT SARL

By: /s/ Nakisa Serry
Name: Nakisa Serry
Title: Authorized Signatory

By: /s/ David Pignolet
Name: David Pignolet
Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE R&D SARL

By: /s/ Tuomo Patsi
Name: Tuomo Patsi
Title: Managing Director

By: /s/ David Pignolet
Name: David Pignolet
Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE RECEPTOS SARL

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE SLU

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE S.R.O.

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Managing Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Managing Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE SRO

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Executive Director

By: /s/ David Pignolet

Name: David Pignolet

Title: Executive Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE SAS

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE SPRL

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Manager

By: /s/ David Pignolet

Name: David Pignolet

Title: Manager

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

CELGENE S.R.L

By: /s/ Nakisa Serry

Name: Nakisa Serry

Title: Authorized Signatory

By: /s/ David Pignolet

Name: David Pignolet

Title: Authorized Signatory

[*Signature Page to LPA Inventory Letter Agreement*]

SIGNAL PHARMACEUTICALS, LLC

By: /s/ Katherine Kelly

Name: Katherine Kelly

Title: Manager and Authorized Person

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN (EUROPE) GMBH

By: /s/ Justin G. Claeys

Name: Justin G. Claeys

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN (NEW ZEALAND) LIMITED

By: /s/ Penny Chan Wan

Name: Penny Chan Wan

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN AB

By: /s/ Justin G. Claeys

Name: Justin G. Claeys

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN ASTELLAS BIOPHARMA K.K.

By: /s/ Steve Kenji Sugino

Name: Steve Kenji Sugino

Title: Representative Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN AUSTRALIA PTY LIMITED

By: /s/ Penny Chan Wan

Name: Penny Chan Wan

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN B.V.

By: /s/ Marika Murto

Name: Marika Murto

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN BIO-FARMACÊUTICA LDA

By: /s/ Tiago Gueds Amieiro

Name: Tiago Gueds Amieiro

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN CANADA INC.

By: /s/ Jonathan P. Graham

Name: Jonathan P. Graham

Title: EVP, General Counsel & Secretary

[*Signature Page to LPA Inventory Letter Agreement*]

AMGEN D.O.O.

By: /s/ Irena Hampel Hrsak

Name: Irena Hampel Hrsak

Title: Director

AMGEN D.O.O.

By: /s/ Sanja Cerovac Vodičar

Name: Sanja Cerovac Vodičar

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN EUROPE B.V.

By: /s/ Justin G. Claeys

Name: Justin G. Claeys

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN AB, FILIAL I FINLAND

By: /s/ Niilo Färkkila

Name: Niilo Färkkila

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN GMBH

By: /s/ Lauri Lindgren

Name: Lauri Lindgren

Title: Director

AMGEN GMBH

By: /s/ Christoph Eder

Name: Christoph Eder

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN GMBH

By: /s/ Andreas Bierl

Name: Andreas Bierl

Title: Director

AMGEN GMBH

By: /s/ Roman Stampfli

Name: Roman Stampfli

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

If the foregoing accurately sets forth our agreement on the foregoing matters, please execute this Letter Agreement where indicated below.

Very truly yours,

CELGENE CORPORATION

By: _____

Name:

Title:

Agreed and accepted:

AMGEN INC.

By: /s/ Jonathan P. Graham

Name: Jonathan P. Graham

Title: EVP, General Counsel & Secretary

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN IRELAND LIMITED

By: /s/ Caitriona Duggan

Name: Caitriona Duggan

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN LIMITED

By: /s/ Christopher Walker

Name: Christopher Walker

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN MEXICO SA de CV

By: /s/ Giles Marrache

Name: Giles Marrache

Title: Chairman

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN NV

By: /s/ Catherine Boutremans

Name: Catherine Boutremans

Title: Director

AMGEN NV

By: _____

Name: Justin G. Claeys

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN NV

By: _____

Name: Catherine Boutremans

Title: Director

AMGEN NV

By: /s/ Justin G. Claeys

Name: Justin G. Claeys

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN S.A.U.

By: /s/ Fina Llados

Name: Fina Llados

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN S.R.L.

By: /s/ Soren Giese

Name: Soren Giese

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN S.R.O.

By: /s/ Tomas Brezina

Name: Tomas Brezina

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN SLOVAKIA S.R.O.

By: /s/ Sorin Popescu

Name: Sorin Popescu

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN SWITZERLAND AG

By: /s/ Giles Marrache

Name: Giles Marrache

Title: Director

AMGEN SWITZERLAND AG

By: _____

Name: Henrik Asmussen

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN SWITZERLAND AG

By: _____

Name: Giles Marrache

Title: Director

AMGEN SWITZERLAND AG

By: /s/ Henrik Asmussen

Name: Henrik Asmussen

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN ZDRAVILA, TRŽENJE ZDRAVIL D.O.O.

By: /s/ Sanja Cerovac Vodicar

Name: Sanja Cerovac Vodicar

Title: Country Director

[*Signature Page to LPA Inventory Letter Agreement*]

Acknowledged and accepted:

AMGEN SAS

By: /s/ Corrine Blachier-Poisson

Name: Corrine Blachier-Poisson

Title: Director

[*Signature Page to LPA Inventory Letter Agreement*]

Exhibits Omitted from Letter Agreement

Pursuant to Regulation S-K, Item 601(b)(2), the exhibits to Letter Agreement, as listed below, have not been filed. The Registrant agrees to furnish supplementally a copy of any omitted exhibits to the Securities and Exchange Commission upon request; provided, however, that the Registrant may request confidential treatment of omitted items.

Exhibits

Exhibit A Financial Statements

Exhibit B Transfer Trigger Events

Exhibit C Product Inventory Transfer Schedule

DESCRIPTION OF AMGEN INC.'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934

As of February 11, 2020, Amgen Inc. has three classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): (1) our common stock, par value $0.0001 per share (the "Common Stock"); (2) our 1.250% Senior Notes due 2022 (the "2022 Notes"); and (3) our 2.000% Senior Notes due 2026 (the "2026 Notes" and, together with the 2022 Notes, the "Notes").

DESCRIPTION OF COMMON STOCK

The following description of our capital stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our restated certificate of incorporation, as amended ("certificate of incorporation") and our amended and restated bylaws, each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K ("Annual Report"). The terms "Amgen" "we," "our," and "us" refer solely to Amgen Inc. and not its subsidiaries.

Our authorized capital stock includes 2,750,000,000 shares of Common Stock. Each holder of our Common Stock is entitled to one vote per share on all matters to be voted upon by our stockholders. Upon any liquidation, dissolution or winding up of our business, the holders of our Common Stock are entitled to share equally in all assets available for distribution after payment of all liabilities, subject to the liquidation preference of shares of preferred stock, if any, then outstanding. Our Common Stock has no preemptive or conversion rights. All outstanding shares of common stock are fully paid and non-assessable. Our outstanding shares of common stock are quoted on the Nasdaq Global Select Market under the symbol "AMGN."

Dividends

Subject to preferences that may be applicable to any preferred stock (if any such stock be issued and outstanding), the holders of Common Stock are entitled ratably to receive dividends, if any, declared by our board of directors out of funds legally available for the payment of dividends.

Anti-Takeover Effects of Delaware Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. Under Section 203, we would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to such time, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- at or subsequent to such time, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any transaction which results in the issuance or transfer by the corporation or by any direct or indirect majority-owned subsidiary of the corporation of any stock of the corporation or of such subsidiary to the interested stockholder, subject to limited exceptions;
- any transaction involving the corporation or any direct or indirect majority-owned subsidiary of the corporation which has the effect, directly or indirectly, of increasing the proportionate share of the stock of any class or series, or securities convertible into the stock of any class or series, of the corporation or of any such subsidiary which is owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation or any direct or indirect majority-owned subsidiary of the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

Transfer Agent

The transfer agent and registrar for our Common Stock is the American Stock Transfer & Trust Company.

DESCRIPTION OF THE NOTES

The following description of our 2022 Notes and the 2026 Notes is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the indenture, dated as of May 22, 2014 (the "Indenture"), between us and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), which are incorporated by reference as exhibits to the Annual Report of which this Exhibit 4.29 is a part. The 2022 Notes, and the 2026 Notes are each traded on The New York Stock Exchange under the trading symbols of "AMGN22," and "AMGN26," respectively. We encourage you to read the above referenced Indenture for additional information.

General

The 2022 Notes:

- We issued €1,250,000,000 in aggregate principal amount of 1.250% Senior Notes, maturing February 25, 2022 and bearing interest at a rate of 1.250% per annum, payable annually on February 25 of each year. As of February 11, 2020, €1,250,000,000 aggregate principal amount of the 2022 Notes was outstanding.

The 2026 Notes:

- We issued €750,000,000 in aggregate principal amount of 2.000% Senior Notes, maturing February 25, 2026 and bearing interest at a rate of 2.000% per annum, payable annually on February 25 of each year. As of February 11, 2020, €750,000,000 aggregate principal amount of the 2026 Notes was outstanding.

We may, without notice to or the consent of the holders or beneficial owners of the Notes of any series, create and issue additional Notes and/or notes having the same ranking, interest rate, maturity and other terms as the Notes of that series. Any additional debt securities having such similar terms, together with that series of Notes, could be considered part of the same series of Notes under the Indenture; *provided* that, in the case of any notes represented by global notes, for so long as may be required by the United States Securities Act of 1933, as amended (the "Securities Act"), or the procedures of the common depositary, the Euroclear System ("Euroclear") or Clearstream Banking, S.A. ("Clearstream") (or a successor or clearing system), such additional Notes will be represented by one or more separate global notes in accordance with the terms of the Indenture and subject to applicable transfer or other restrictions.

The Notes are redeemable prior to maturity as described below under the headings "—Optional Redemption" and "—Redemption Upon Changes in Withholding Taxes." The Notes do not have the benefit of any sinking funds. The Notes of each series are issued only in registered form without coupons attached in minimum denominations of €100,000 and any integral multiple of €1,000 in excess thereof. Each series of Notes are represented by one or more global securities deposited with, or on behalf of, a common depositary for Euroclear and Clearstream (the "global notes").

Certain Definitions

As used herein, the following terms have the meanings set forth below.

"*Attributable Liens*" means in connection with a sale and lease-back transaction the lesser of:

(1) the fair market value of the assets subject to such transaction; and

(2) the present value (discounted at a rate per annum equal to the average interest borne by all outstanding debt securities issued under the Indenture (which may include debt securities in addition to the Notes) determined on a weighted average basis and compounded semi-annually) of the obligations of the lessee for rental payments during the term of the related lease.

"*Business Day*" means any day on which commercial banks and foreign exchange markets are open for business in New York and London and which is a day on which the Trans-European Automated Real-Time Gross Settlement Express Transfer System (TARGET2) is operating.

"*Calculation Agent*" means an independent financial institution appointed by Amgen, which may include the paying agent, any of the managers or their respective affiliates who agree to serve in such capacity.

"*Capital Lease*" means any Indebtedness represented by a lease obligation of a Person incurred with respect to real property or equipment acquired or leased by such Person and used in its business that is required to be recorded as a capital lease in accordance with GAAP.

"*Consolidated Net Worth*" means, as of any date of determination, the Stockholders' Equity of us and our Consolidated Subsidiaries on that date.

"*Consolidated Subsidiary*" means, as of any date of determination and with respect to any Person, any Subsidiary of that Person whose financial data is, in accordance with GAAP, reflected in that Person's consolidated financial statements.

"*Credit Facilities*" means, one or more debt facilities (including, without limitation, the revolving credit agreement and the term loan credit agreement, as applicable) or commercial paper facilities, in each case, with banks or other institutional lenders providing for revolving credit loans, term loans, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, modified, renewed, refunded, replaced (whether upon or after termination or otherwise) or refinanced (including by means of sales of debt securities to institutional investors) in whole or in part from time to time.

"*Exempted Debt*" means the sum of the following as of the date of determination:

(1) our Indebtedness incurred after the first issue date of the Notes and secured by Liens not permitted by the first sentence under "—Limitation on Liens" below; and

(2) our and our Subsidiaries' Attributable Liens in respect of sale and lease-back transactions entered into after the first issue date of the Notes pursuant to the second paragraph of "—Limitation on Sale and Lease-Back Transactions" below.

"*GAAP*" means accounting principles generally accepted in the United States set forth in the Accounting Standards Codification of the Financial Accounting Standards Board or in such other documents by such other entity as have been approved by a significant segment of the accounting profession, which are in effect as of the date of determination.

"*Governmental Agency*" means:

(1) any foreign, federal, state, county or municipal government, or political subdivision thereof;

(2) any governmental or quasi-governmental agency, authority, board, bureau, commission, department, instrumentality or public body;

(3) any court or administrative tribunal; and

(4) with respect to any Person, any arbitration tribunal or other nongovernmental authority to whose jurisdiction that Person has consented.

"*Hedging Obligations*" means, with respect to any specified Person, the obligations of such Person under:

(1) interest rate swap agreements (whether from fixed to floating or from floating to fixed), interest rate cap agreements and interest rate collar agreements;

(2) other agreements or arrangements designed to manage interest rates or interest rate risk; and

(3) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

"*Indebtedness*" of any Person means, without duplication, any indebtedness, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements with respect thereto) or representing the balance deferred and unpaid of the purchase price of any Property (including pursuant to Capital Leases), except any such balance that constitutes an accrued expense or trade payable, if and to the extent any of the foregoing indebtedness would appear as a liability upon a balance sheet of such Person prepared on a consolidated basis in accordance with GAAP (but does not include contingent liabilities which appear only in a footnote to a balance sheet), and shall also include, to the extent not otherwise included, the guaranty of items which would be included within this definition.

"*Laws*" means, collectively, all foreign, federal, state and local statutes, treaties, rules, regulations, ordinances, codes and administrative or controlling precedents of any Governmental Agency.

"*Lien*" means any lien, security interest, charge or encumbrance of any kind (including any conditional sale or other title retention agreement, any lease in the nature thereof, and any agreement to give any security interest).

"*Make-Whole Amount*" means the excess of (1) the net present value, on the redemption date, of the principal being redeemed or paid and the amount of interest (exclusive of interest accrued to the date of redemption) that would have been payable if such redemption had not been made, over (2) the aggregate principal amount of the Notes being redeemed or paid. Net present value shall be determined by discounting, on a semi-annual basis, such principal and interest at the Reinvestment Rate (as defined below and as determined on the third Business Day preceding the date such notice of redemption is given) from the respective dates on which such principal and interest would have been payable if such redemption had not been made.

"*Permitted Liens*" means:

(1) Liens securing Indebtedness under Credit Facilities;

(2) Liens on accounts receivable, merchandise inventory, equipment, and patents, trademarks, trade names and other intangibles, securing our Indebtedness;

(3) Liens on any of our assets, any of our Subsidiaries' assets, or the assets of any joint venture to which we or any of our Subsidiaries is a party, created solely to secure obligations incurred to finance the refurbishment, improvement or construction of such asset, which obligations are incurred no later than 24 months after completion of such refurbishment, improvement or construction, and all renewals, extensions, refinancings, replacements or refundings of such obligations;

(4) (a) Liens given to secure the payment of the purchase price incurred in connection with the acquisition (including acquisition through merger or consolidation) of Property (including shares of stock), including Capital Lease transactions in connection with any such acquisition, and (b) Liens existing on Property at the time of acquisition thereof or at the time of acquisition by us or one of our Subsidiaries of any Person then owning such Property whether or not such existing Liens were given to secure the payment of the purchase price of the Property to which they attach; provided that, with respect to clause (a), the Liens shall be given within 24 months after such acquisition and shall attach solely to the Property acquired or purchased and any improvements then or thereafter placed thereon;

(5) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(6) Liens upon specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(7) Liens securing reimbursement obligations with respect to letters of credit that encumber documents and other Property relating to such letters of credit and the products and proceeds thereof;

(8) Liens on key-man life insurance policies granted to secure our Indebtedness against the cash surrender value thereof;

(9) Liens encumbering customary initial deposits and margin deposits and other Liens in the ordinary course of business, in each case securing Hedging Obligations and forward contract, option, futures contracts, futures options or similar agreements or arrangements designed to protect us or any of our Subsidiaries from fluctuations in interest rates, currencies or the price of commodities;

(10) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into by us or any of our Subsidiaries in the ordinary course of business;

(11) pre-existing Liens on assets acquired by us or any of our Subsidiaries after the first issue date of the Notes;

(12) Liens in our favor or the favor of any of our Subsidiaries;

(13) inchoate Liens incident to construction or maintenance of real property, or Liens incident to construction or maintenance of real property, now or hereafter filed of record for sums not yet delinquent or being contested in good faith, if reserves or other appropriate provisions, if any, as shall be required by GAAP shall have been made therefor;

(14) statutory Liens arising in the ordinary course of business with respect to obligations which are not delinquent or are being contested in good faith, if reserves or other appropriate provisions, if any, as shall be required by GAAP shall have been made therefor;

(15) Liens consisting of pledges or deposits to secure obligations under workers' compensation laws or similar legislation, including Liens of judgments thereunder which are not currently dischargeable;

(16) Liens consisting of pledges or deposits of Property to secure performance in connection with operating leases made in the ordinary course of business to which we or any of our Subsidiaries is a party as lessee, provided the aggregate value of all such pledges and deposits in connection with any such lease does not at any time exceed 16 2⁄3% of the annual fixed rentals payable under such lease;

(17) Liens consisting of deposits of Property to secure our statutory obligations or statutory obligations of any of our Subsidiaries in the ordinary course of its business;

(18) Liens consisting of deposits of Property to secure (or in lieu of) surety, appeal or customs bonds in proceedings to which we or any of our Subsidiaries is a party in the ordinary course of its business, but not in excess of $75,000,000;

(19) purchase money Liens or purchase money security interests upon or in any Property acquired or held by us or any of our Subsidiaries in the ordinary course of business to secure the purchase price of such Property or to secure indebtedness incurred solely for the purpose of financing the acquisition of such Property;

(20) Liens on an asset created in connection with the acquisition, construction or development of additions, extensions or improvements to such asset which shall be financed by obligations described in Sections 142, 144(a) or 144(c) of the Code, or by obligations entitled to substantially similar tax benefits under other legislation or regulations in effect from time to time; and

(21) Liens on Property subject to escrow or similar arrangements established in connection with litigation settlements.

"*Person*" means any individual, corporation, partnership, joint venture, association, limited liability company, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"*Property*" means any property or asset, whether real, personal or mixed, or tangible or intangible.

"*Reference Bund*" means, for the 2022 Notes , the Federal Government Bond of Bundesrepublik Deutschland due January 4, 2022, with ISIN 0001135465, and for the 2026 Notes , the Federal Government Bond of Bundesrepublik Deutschland due February 15, 2026, with ISIN 0001102390.

"*Reference Dealers*" means each of the four banks selected by a Calculation Agent which are primary European government security dealers, and their respective successors, or market makers in pricing corporate bond issues.

"*Reinvestment Rate*" means, for the 2022 Notes , 0.250%, and for the 2026 Notes , 0.300%, in each case plus the average of the four quotations given by the Reference Dealers of the mid-market annual yield to maturity of the Reference Bund at 11: 00 a.m. (Central European time ("CET")) on the fourth Business Day preceding such redemption date and if the Reference Bund is no longer outstanding, a Similar Security will be chosen by the Calculation Agent at 11: 00 a.m. (CET) on the third Business Day in London preceding such redemption date, quoted in writing by the Calculation Agent to us.

"*Similar Security*" means a reference bond or reference bonds issued by the German Federal Government having an actual or interpolated maturity comparable with the remaining term of the Notes that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes .

"*Stockholders' Equity*" means, as of any date of determination, stockholders' equity as of that date determined in accordance with GAAP; provided that there shall be excluded from Stockholders' Equity any amount attributable to capital stock that is, directly or indirectly, required to be redeemed or repurchased by the issuer thereof at a specified date or upon the occurrence of specified events or at the election of the holder thereof.

"*Subsidiary*" of any specified person means any corporation, association or other business entity of which more than 50% of the total voting power of shares of capital stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such person or one or more of the other Subsidiaries of that person or a combination thereof.

Paying Agent and Registrar

The Bank of New York Mellon, London Branch, is the principal paying agent for the Notes (the "principal paying agent"). The Bank of New York Mellon Trust Company, N.A., is the security registrar for the Notes. Upon notice to the Trustee, we may change any paying agent or security registrar, and we or any of our subsidiaries may act as paying agent or registrar.

Interest

The 2022 Notes accrue interest at a rate of 1.250% per annum and the 2026 Notes accrue interest at a rate of 2.000% per annum. The Notes accrue interest on their stated principal amounts from the most recent interest payment date on which interest has been paid or duly provided for. Accrued and unpaid interest on the Notes are payable annually in arrears on February 25 of each year. In each case, interest is paid to the holder in whose name a note is registered at the close of business on the day that is one Business Day prior to the relevant interest payment date.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as Actual/Actual (ICMA) as defined in the rulebook of the International Capital Market Association. If any date on which interest, principal or premium is payable on the Notes is not a Business Day, then payment of such amounts payable on such date will be made on the next succeeding day that is a Business Day (and, except as provided under "—Payment of Additional Amounts," without any interest or other payment in respect of any such delay) with the same force and effect as if made on such interest payment date or maturity date, as the case may be.

Any amounts payable on any Notes that are not punctually paid on any payment date will cease to be payable to the person in whose name such Notes are registered on the relevant record date, and such defaulted payment will instead be payable to the person in whose name such Notes are registered on the special record date or other specified date determined in accordance with the Indenture.

Ranking

The Notes are senior unsecured obligations of Amgen. The Notes rank:

- equal in right of payments to all of our other existing and future senior unsecured indebtedness;
- senior in right of payment to all of our existing and future subordinated indebtedness; and
- effectively subordinated in right of payment to all of our subsidiaries' obligations (including secured and unsecured obligations) and subordinated in right of payment to our secured obligations, to the extent of the assets securing such obligations.

The Notes and the Indenture do not limit our ability to incur additional indebtedness. We may incur substantial additional amounts of indebtedness in the future.

Optional Redemption

The 2022 Notes may be redeemed prior to maturity at our option, at any time in whole or from time to time in part. If the 2022 Notes are redeemed before November 25, 2021 (three months prior to the maturity date of the 2022 Notes), the redemption price will equal the sum of (1) 100% of the principal amount being redeemed, plus accrued and unpaid interest to, but not including, the redemption date, and (2) the Make-Whole Amount (as defined below), if any. If the 2022 Notes are redeemed on or after November 25, 2021 (three months prior to the maturity date of the 2022 Notes), the redemption price will equal 100% of the principal amount being redeemed, plus accrued and unpaid interest to, but not including, the redemption date.

The 2026 Notes may be redeemed prior to maturity at our option, at any time in whole or from time to time in part. If the 2026 Notes are redeemed before November 25, 2025 (three months prior to the maturity date of the 2026 Notes), the redemption price will equal the sum of (1) 100% of the principal amount being redeemed, plus accrued and unpaid interest to, but not including, the redemption date, and (2) the Make-Whole Amount, if any. If the 2026 Notes are redeemed on or after November 25, 2025 (three months prior to the maturity date of the 2026 Notes), the redemption price will equal 100% of the principal amount being redeemed, plus accrued and unpaid interest to, but not including, the redemption date.

If we give notice as provided in the Indenture and funds for the redemption of any Notes called for redemption sufficient to pay the redemption price have been deposited with the principal paying agent on or before 10:00 a.m., London time, on the redemption date, such Notes will cease to bear interest on the date fixed for redemption. Thereafter, the only right of the holders of such Notes will be to receive payment of the redemption price.

Upon surrender of a note that is redeemed in part, we shall execute and the Trustee shall authenticate for the holder a new note of the same series and the same maturity equal in principal amount to the unredeemed portion of the note surrendered.

The Notes are redeemable prior to maturity as described below under the headings "—Optional Redemption" and "—Redemption Upon Changes in Withholding Taxes." The Notes do not have the benefit of any sinking funds. The Notes of each series are issued only in registered form without coupons attached in minimum denominations of €100,000 and any integral multiple of €1,000 in excess thereof. Each series of Notes are represented by one or more global securities deposited with, or on behalf of, a common depositary for Euroclear and Clearstream (the "global notes").

Payments on the global notes are made through the principal paying agent (as defined herein under the heading "—Paying Agent and Registrar"). Payments on the Notes are made at the specified office or agency of the principal paying agent; *provided* that all such payments with respect to Notes represented by one or more global notes registered in the name of or held by a nominee of Euroclear or Clearstream, as applicable, will be by wire transfer of immediately available funds to the account specified by the holder or holders thereof.

In addition, at our option, if certificated notes are issued, we may make payments by check mailed to the holder's registered address or by wire transfer to the account shown on the register for the certificated notes.

If certificated notes are issued, they will be issued only in minimum denominations of €100,000 principal amount and integral multiples of €1,000 in excess thereof upon receipt by the applicable registrar of instructions relating thereto and any certificates and other documentation required under the Indenture. It is expected that such instructions will be based upon directions received by Euroclear or Clearstream, as applicable, from the participant which owns the relevant book-entry interests. Certificated notes issued in exchange for book-entry interests will, except as provided in the Indenture, be subject to, and will have a legend with respect to the restrictions on transfer summarized below.

Subject to the restrictions on transfer referred to above, Notes issued as certificated notes may be transferred or exchanged, in whole or in part, in minimum denominations of €100,000 principal amount and integral multiples of €1,000 in excess thereof to persons who take delivery thereof in the form of certificated notes. In connection with any such transfer or exchange, the Indenture requires the transferring or exchanging holder to, among other things, furnish appropriate endorsements and transfer documents, to furnish information regarding the account of the transferee at Euroclear or Clearstream, where appropriate, to furnish certain certificates and opinions, and to pay any tax or other governmental charge in connection with such transfer or exchange. Any such transfer or exchange will otherwise be made without charge to the holder.

Notwithstanding the foregoing, we are not required to register the transfer or exchange of any Notes:

- for a period of 15 days prior to any date fixed for the redemption of the Notes;
- for a period of 15 days immediately prior to the date fixed for selection of Notes to be redeemed in part;
- for a period of 15 days prior to the record date with respect to any interest payment date; or
- which the holder has tendered (and not withdrawn) for repurchase in connection with a change of control offer.

Redemption Upon Changes in Withholding Taxes

If (a) as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein having power to tax) (a "Relevant Taxing Jurisdiction"), or any change in, or amendment to, the official position regarding the application or interpretation of such laws, regulations or rulings (including by virtue of a holding, judgment or order by a court of competent jurisdiction or a change in published administrative practice), which change or amendment is announced on or after the date of the applicable prospectus supplement, we become or will become obligated to pay additional amounts as described herein under the heading "—Payment of Additional Amounts" or (b) any act is taken by a Relevant Taxing Jurisdiction on or after the date of the applicable prospectus supplement, whether or not such act is taken with respect to us or any affiliate, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem the Notes of any affected series, as a whole but not in part, upon not less

than 15 days' nor more than 60 days' published notice in accordance with the applicable notice requirement, at 100% of their principal amount, together with interest accrued thereon to the date fixed for redemption; *provided* that we determine, in our business judgment, that the obligation to pay such additional amounts cannot be avoided by the use of reasonable measures available to us (which does not include substitution of the obligor under the Notes). No redemption pursuant to (a) or (b) above may be made unless we have received an opinion of independent counsel to the effect that as a result of such change or amendment we will, or that an act taken by a Relevant Taxing Jurisdiction has resulted in a substantial probability that we will, or may, be required to pay the additional amounts described herein under the heading "—Payment of Additional Amounts," and we shall have delivered to the Trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Notice of Redemption

We will publish a notice of any redemption of any affected series of Notes described above in accordance with the applicable notice provisions. If fewer than all of the Notes are to be redeemed at any time, the principal paying agent will select the Notes to be redeemed in accordance with the rules of the principal securities exchange, if any, on which the Notes are listed at such time or, if the not Notes are not listed on a securities exchange, in accordance with the rules of Euroclear or Clearstream, or absent any such rules, *pro rata*, by lot; *provided, however*, that no such partial redemption shall reduce the portion of the principal amount of a note not redeemed to less than €100,000. The principal paying agent shall not be liable for any selections made by it in accordance with this paragraph.

We will give notice of any optional redemption to the registered holders of Notes at least 15 but not more than 60 days before a redemption date. The notice shall identify the Notes to be redeemed and shall state:

- the redemption date;
- the redemption price;
- the name and address of the paying agent;
- if any Notes are being redeemed in part, the portion of the principal amount of such notes to be redeemed and that, after the redemption date and upon surrender of such Notes, a new note or notes in principal amount equal to the unredeemed portion of the original note shall be issued in the name of the holder of the Notes thereof upon cancellation of the original note;
- that the notes called for redemption must be surrendered to the paying agent to collect the redemption price;
- that interest on the Notes called for redemption ceases to accrue on and after the redemption date unless we default in the deposit of the redemption price; and
- the CUSIP and/or ISIN number of the Notes.

At our request, the Trustee shall give the notice of redemption in our name and at our expense.

Payment of Additional Amounts

All payments of principal and interest on the Notes will be made free and clear of and without withholding or deduction for or on account of any present or future tax, assessment or other governmental charge (collectively, "Taxes") imposed by any Relevant Taxing Jurisdiction, unless the withholding of such Taxes is required by law or the official interpretation or administration thereof. We will, subject to the exceptions and limitations set forth below, pay such additional amounts as are necessary in order that the net payment of the principal of and interest on the applicable series of Notes to a holder who is not a U.S. person for U.S. federal income tax purposes, after deduction for any present or future Taxes of any Relevant Taxing Jurisdiction, imposed by withholding with respect to the payment, will not be less than the amount provided in such Notes to be then due and payable*; provided*, *however*, that the foregoing obligation to pay additional amounts shall not apply:

(1) to any Taxes that are imposed or withheld solely by reason of the holder or beneficial owner, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as:

(a) being or having been present or engaged in a trade or business in the United States or having or having had a permanent establishment in the United States;

(b) having a current or former relationship with the United States, including a relationship as a citizen or resident thereof;

(c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid U.S. federal income tax;

(d) being or having been a "10-percent shareholder" of the obligor under the Notes within the meaning of section 871(h)(3) of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), or any successor provision; or

(e) being or having been a bank receiving interest described in section 881(c)(3)(A) of the Code or any successor provision;

(2) to any holder that is not the sole beneficial owner of the note, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment;

(3) to any Taxes that are imposed or withheld solely by reason of the failure to (a) comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with a Relevant Taxing Jurisdiction of the holder or beneficial owner of such note, if compliance is required by statute or by regulation of the Relevant Taxing Jurisdiction as a precondition to relief or exemption from such Taxes (including the submission of an applicable U.S. Internal Revenue Service ("IRS") Form W-8 (with any required attachments)) or (b) comply with any informational gathering and reporting requirements or to take any similar action (including entering into any agreement with the IRS), in each case, that are required to obtain the maximum available exemption from withholding by a Relevant Taxing Jurisdiction that is available to payments received by or on behalf of the holder;

(4) to any Taxes that are imposed otherwise than by withholding from the payment;

(5) to any Taxes that are imposed or withheld solely by reason of a change in law, regulation, or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later;

(6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or a similar tax, assessment or governmental charge;

(7) to any Taxes required to be withheld by any paying agent from any payment of principal of or interest on any note, if such payment can be made without such withholding by any other paying agent;

(8) to any Taxes that are imposed or levied by reason of the presentation (where presentation is required in order to receive payment) of such notes for payment on a date more than 30 days after the date on which such payment became due and payable, except to the extent that the holder or beneficial owner thereof would have been entitled to additional amounts had the notes been presented for payment on any date during such 30 day period;

(9) to any Taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code, as of the issue date (or any amended or successor version of such sections), any U.S. Treasury Regulations promulgated

thereunder, any official interpretations thereof, any similar law or regulation adopted pursuant to an intergovernmental agreement between a non-U.S. jurisdiction and the United States with respect to the foregoing or any agreements entered into pursuant to Section 1471(b)(1) of the Code; or

(10) in the case of any combination of any items (1) through (9).

The notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable thereto. Except as specifically provided under this heading "—Payment of Additional Amounts," we are not required to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority thereof or therein.

Change of Control Offer

If a change of control triggering event occurs, unless we have exercised our option to redeem the notes as described above, we will be required to make an offer (the "change of control offer") to each holder of the notes to repurchase all or any part (equal to €100,000 or integral multiples of €1,000 in excess thereof) of that holder's notes on the terms set forth in such notes. In the change of control offer, we will be required to offer payment in cash equal to 101 % of the aggregate principal amount of notes repurchased, plus accrued and unpaid interest, if any, on the notes repurchased to the date of repurchase (the "change of control payment"). Within 30 days following any change of control triggering event, a notice will be provided to holders of the notes describing the transaction that constitutes the change of control triggering event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is provided (the "change of control payment date"); provided, however, that in no event will the change of control payment date occur prior to the date 90 days following the first issue date of the notes.

On the change of control payment date, we will, to the extent lawful:

- accept for payment all notes or portions of notes properly tendered pursuant to the change of control offer;
- by 10:00 a.m., London time, deposit with the principal paying agent an amount equal to the change of control payment in respect of all notes or portions of notes properly tendered; and
- deliver or cause to be delivered to the Trustee the notes properly accepted together with an officer's certificate stating the aggregate principal amount of notes or portions of notes being repurchased.

We will not repurchase any notes if there has occurred and is continuing on the change of control payment date an event of default under the Indenture, other than a default in the payment of the change of control payment upon a change of control triggering event.

We will comply with the requirements of Rule 14e-1 under the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a change of control triggering event. To the extent that the provisions of any such securities laws or regulations conflict with the change of control offer provisions of the notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the change of control offer provisions of the notes by virtue of any such conflict.

For purposes of the change of control offer provisions of the notes, the following terms will be applicable:

"*Beneficial owner*" shall be determined in accordance with Rules 13d-3 and 13d-5 under the Exchange Act or any successor provisions, except that a person will be deemed to have beneficial ownership of all shares that person has the right to acquire irrespective of whether that right is exercisable immediately or only after the passage of time.

"*Change of control*" means the occurrence of any of the following: (1) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any person or group (other than our company or one of our subsidiaries) becomes the beneficial owner, directly or indirectly, of more than 50% of our voting stock or other voting stock into which our voting stock is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares; provided, however, that a person shall not be deemed beneficial owner of, or to own beneficially, (A) any securities tendered pursuant to a tender or exchange offer made by or on behalf of such person or any of such person's affiliates until such tendered securities are accepted for purchase or exchange thereunder, or (B) any securities if such beneficial ownership (i) arises solely as a result of a revocable proxy delivered in response to a proxy or consent solicitation made pursuant to the applicable rules and regulations under the Exchange Act, and (ii) is not also then reportable on Schedule 13D (or any successor schedule) under the Exchange Act; (2) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or more series of related transactions, of all or substantially all of our assets and the assets of our subsidiaries, taken as a whole,

to one or more persons or groups (other than our company or one of our subsidiaries), provided that none of the circumstances in this clause (2) will be a change of control if the persons that beneficially own our voting stock immediately prior to the transaction own, directly or indirectly, shares with a majority of the total voting power of all outstanding voting securities of the surviving or transferee person that are entitled to vote generally in the election of that person's board of directors, managers or trustees immediately after the transaction; (3) we consolidate with, or merge with or into any person, or any person consolidates with, or merges with or into, us, in any such event pursuant to a transaction in which any of our outstanding voting stock or the voting stock of such other person is converted into or exchanged for cash, securities or other property, other than such transaction where the shares of our voting stock outstanding immediately prior to such transaction constitute, or are converted into or exchanged for, a majority of the voting stock of the surviving person or any direct or indirect parent company of the surviving person immediately after giving effect to such transaction; or (4) the adoption of a plan relating to our liquidation or dissolution. Notwithstanding the foregoing, a transaction will not be deemed to involve a change of control under clause (1) above if (i) we become a direct or indirect wholly-owned subsidiary of a holding company and (ii) (A) the direct or indirect holders of the voting stock of such holding company immediately following that transaction are substantially the same as the holders of our voting stock immediately prior to that transaction or (B) immediately following that transaction no person (other than a holding company satisfying the requirements of this sentence) is the beneficial owner, directly or indirectly, of more than 50% of the voting stock of such holding company.

"*Change of control triggering event*" means the occurrence of both a change of control and a rating event.

"*Fitch*" means Fitch, Inc., and its successors.

"*Group*" has the meaning given by Section 13(d) and 14(d) of the Exchange Act or any successor provisions and includes any group acting for the purpose of acquiring, holding or disposing of securities within the meaning of Rule 13d-5(b)(1) under the Exchange Act or any successor provision.

"*Investment grade rating*" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's, BBB—(or the equivalent) by S&P and BBB—(or the equivalent) by Fitch, and the equivalent investment grade credit rating from any additional rating agency or rating agencies selected by us.

"*Moody's*" means Moody's Investors Service, Inc., and its successors.

"*Person*" has the meaning given by Section 13(d) and 14(d) of the Exchange Act or any successor provisions.

"*Rating agencies*" means (1) each of Fitch, Moody's and S&P; and (2) if any of Fitch, Moody's or S&P ceases to rate the notes or fails to make a rating of the notes publicly available for reasons outside of our control, a "nationally recognized statistical rating organization" within the meaning of Section 3(a)(62) of the Exchange Act selected by us (as certified by a resolution of our Board of Directors) as a replacement agency for Fitch, Moody's or S&P, or all of them, as the case may be.

"*Rating event*" means the rating on the applicable series of notes is lowered by at least two of the three rating agencies and the notes are rated below an investment grade rating by at least two of the three rating agencies on any day during the period commencing 60 days prior to the first public notice of the occurrence of a change of control or our intention to effect a change of control and ending 60 days following consummation of such change of control (which period will be extended so long as the rating of the applicable series of notes is under publicly announced consideration for a possible downgrade by any of the rating agencies).

"*S&P*" means Standard & Poor's Rating Services, a division of The McGraw-Hill Companies, Inc., and its successors.

"*Voting stock*" as applied to stock of any person, means shares, interests, participations or other equivalents in the equity interest (however designated) in such person having ordinary voting power for the election of a majority of the directors (or the equivalent) of such person, other than shares, interests, participations or other equivalents having such power only by reason of the occurrence of a contingency.

Certain Covenants

Limitation on Liens

We will not, nor will we permit any of our Subsidiaries to, create or incur any Lien on any of our or their respective Properties, whether now owned or hereafter acquired, or upon any income or profits therefrom, in order to secure any of our Indebtedness, without effectively providing that each series of notes shall be equally and ratably secured until such time as such Indebtedness is no longer secured by such Lien, except:

(1) Liens existing as of the first issue date of the notes;

(2) Liens granted after the first issue date of the notes on any of our or our Subsidiaries' Properties securing our Indebtedness created in favor of the holders of the notes;

(3) Liens securing our Indebtedness which are incurred to extend, renew or refinance Indebtedness which is secured by Liens permitted to be incurred under the Indenture; provided that those Liens do not extend to or cover any of our or our Subsidiaries' Property other than the Property securing the Indebtedness being refinanced and that the principal amount of such Indebtedness does not exceed the principal amount of the Indebtedness being refinanced;

(4) Liens created in substitution of or as replacements for any Liens permitted by the clauses directly above, provided that, based on a good faith determination of one of our officers, the Property encumbered under any such substitute or replacement Lien is substantially similar in nature to the Property encumbered by the otherwise permitted Lien which is being replaced; and

(5) Permitted Liens.

Notwithstanding the foregoing, we and any of our Subsidiaries may, without securing any series of notes, create or incur Liens which would otherwise be subject to the restrictions set forth in the preceding paragraph, if after giving effect thereto, Exempted Debt does not exceed the greater of (a) 35% of Consolidated Net Worth calculated as of the date of the creation or incurrence of the Lien or (b) 35% of Consolidated Net Worth calculated as of the first issue date of the notes.

Limitation on Sale and Lease-Back Transactions

We will not, nor will we permit any of our Subsidiaries to, enter into any sale and lease-back transaction for the sale and leasing back of any Property, whether now owned or hereafter acquired, of ours or any of our Subsidiaries, unless:

(1) such transaction was entered into prior to the first issue date of the notes;

(2) such transaction was for the sale and leasing back to us of any Property by one of our Subsidiaries;

(3) such transaction involves a lease for less than three years;

(4) we would be entitled to incur Indebtedness secured by a mortgage on the property to be leased in an amount equal to the Attributable Liens with respect to such sale and lease-back transaction without equally and ratably securing the notes pursuant to the first paragraph of "—Limitation on Liens" above; or

(5) we apply an amount equal to the fair value of the Property sold to the purchase of Property or to the retirement of our or any of our Subsidiaries' long-term Indebtedness within 120 days of the effective date of any such sale and lease-back transaction. In lieu of applying such amount to such retirement, we may, or may cause any of our Subsidiaries to, deliver debt securities to the Trustee therefor for cancellation, such debt securities to be credited at the cost thereof to us.

Notwithstanding the foregoing, we and any of our Subsidiaries may enter into any sale lease-back transaction which would otherwise be subject to the foregoing restrictions if after giving effect thereto and at the time of determination, Exempted Debt does not exceed the greater of (a) 35% of Consolidated Net Worth calculated as of the closing date of the sale-leaseback transaction or (b) 35% of Consolidated Net Worth calculated as of the first issue date of the notes.

Events of Default

Event of default means, with respect to each series of notes, any of the following:

- default in the payment of any interest on the notes of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the Trustee or with the principal paying agent prior to the expiration of the 30-day period);

- default in the payment of principal of the notes of that series at their maturity;

- default in the performance or breach of any other covenant or warranty by us in the Indenture (other than defaults pursuant to the previous two bullet points above or pursuant to a covenant or warranty that has been included in the Indenture solely for the benefit of a series of debt securities other than that series of notes), which default continues uncured for a period of 90 days after we receive written notice from the Trustee or we and the Trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding Notes of the affected series as provided in the Indenture; or

- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of our company.

No event of default with respect to the Notes (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of an event of default may constitute an event of default under our bank credit agreements in existence from time to time. In addition, the occurrence of certain events of default or an acceleration under the Indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

We will provide the Trustee written notice of any default or event of default within 30 days of becoming aware of the occurrence of such default or event of default, which notice will describe in reasonable detail the status of such default or event of default and what action we are taking or propose to take in respect thereof.

If an event of default with respect to a series of Notes occurs and is continuing (other than an event of default regarding certain events of bankruptcy, insolvency or reorganization of our company), then the Trustee or the holders of not less than a majority in principal amount of the outstanding Notes of that series may, by a notice in writing to us (and to the Trustee if given by the holders), declare to be due and payable immediately the principal of, and accrued and unpaid interest, if any, on all Notes of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal of and accrued and unpaid interest, if any, on all outstanding debt securities issued under the Indenture will become and be immediately due and payable without any declaration or other act on the part of the Trustee or any holder of outstanding debt securities, including the Notes. At any time after a declaration of acceleration with respect to a series of Notes has been made, and before a judgment or decree for payment of the money due has been obtained by the Trustee, the holders of a majority in principal amount of the outstanding Notes of that series may, by written notice to us and the Trustee, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to the Notes of that series, have been cured or waived as provided in the Indenture.

The Indenture provides that the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request of any holder of notes, unless the Trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in exercising such right or power. Subject to certain rights of the Trustee, the holders of a majority in principal amount of the outstanding Notes of the affected series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Notes of that series.

No holder of any Note of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the Indenture, or for the appointment of a receiver or Trustee, or for any remedy under the Indenture unless, among other things:

- that holder has previously given to the Trustee written notice of a continuing event of default with respect to the Notes of that series; and
- the holders of at least a majority in principal amount of the outstanding Notes of that series have made written request, and offered reasonable indemnity or security, to the Trustee to institute the proceeding as Trustee, and the Trustee has not received from the holders of a majority in principal amount of the outstanding Notes of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the Indenture, the holder of any Note will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that Note on or after the due dates expressed in that Note and to institute suit for the enforcement of any such payment.

If any securities are outstanding under the Indenture, the Indenture requires us, within 120 days after the end of each fiscal year, to furnish to the Trustee a statement as to our compliance with the indenture. If a default or event of default occurs and is continuing with respect to notes of any series and if it is known to a responsible officer of the Trustee, the Trustee shall deliver to each holder of the Notes of that series notice of a default or event of default within 90 days after it occurs. The Indenture provides that the Trustee may withhold notice to the holders of the Notes of any default or event of default (except in the case of a default or event of default in payment of principal of or interest on any Note of that series) with respect to Notes of that series if it in good faith determines that withholding notice is in the interest of the holders of those Notes.

Modification and Waiver

We and the Trustee may modify and amend the Indenture or Notes of any series without the consent of any holder of Notes:

- to cure any ambiguity, defect or inconsistency;
- to comply with the covenant described below under the heading "—Consolidation, Merger and Sale of Assets;"
- to provide for uncertificated notes in addition to or in place of certificated notes;
- to add guarantees with respect to Notes of any series or secure notes of any series;
- to surrender any of our rights or powers under the Indenture;
- to add covenants or events of default for the benefit of the holders of Notes of any series;
- to comply with the applicable procedures of the applicable depositary;
- to make any change that would not adversely affect the rights of any holder of Notes in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of additional Notes of any series as permitted by the Indenture;
- to effect the appointment of a successor trustee with respect to the Notes and to add to or change any of the provisions of the Indenture to provide for or facilitate administration by more than one trustee; or

- to comply with requirements of the U.S. Securities and Exchange Commission in order to effect or maintain the qualification of the Indenture under the U.S. Trust Indenture Act of 1939.

We may also modify and amend the Indenture with the consent of the holders of at least a majority in principal amount of the outstanding Notes of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected Note then outstanding if that amendment will:

- reduce the amount of Notes whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including any additional amounts) on the Notes;
- reduce the principal of or premium on or change the fixed maturity of the Notes;
- waive a default in the payment of the principal of, premium or interest on the notes (except a rescission of acceleration of the notes by the holders of at least a majority in aggregate principal amount of the then outstanding Notes of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or interest on the Notes payable in currency other than that stated in the Notes;
- make any change to certain provisions of the Indenture relating to, among other things, the right of holders of the Notes to receive payment of the principal of, premium and interest on the Notes and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to the Notes.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding Notes of the affected series may, on behalf of the holders of all the Notes of that series, waive our compliance with provisions of the Indenture. The holders of a majority in principal amount of the outstanding Notes of the affected series may, on behalf of the holders of all the Notes of such series, waive any past default under the Indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any Note of that series; provided, however, that the holders of a majority in principal amount of the outstanding Notes of the affected series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration.

No amendment to cure any ambiguity, defect or inconsistency in the Indenture made solely to conform the Indenture to the description of notes contained in the applicable prospectus supplement will be deemed to adversely affect the interests of the holders of the Notes.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person, which we refer to as a "successor person," unless:

- we are the surviving corporation or the successor person (if other than Amgen) is organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes, pursuant to a supplemental Indenture, our obligations on the notes and under the Indenture; and
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing under the Indenture.

Notwithstanding the foregoing, any of our Subsidiaries may consolidate with, merge into or transfer all or part of its properties and assets to us.

Defeasance and Covenant Defeasance

Legal Defeasance

The Indenture provides that we may be discharged from any and all obligations in respect of the Notes (subject to certain exceptions). We will be so discharged upon the deposit with the Trustee, in trust, of money, U.S. government obligations and/or foreign government obligations that, through the payment of interest and principal in accordance with their terms, will provide money, U.S. government obligations or foreign government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on the Notes on the stated maturity of those payments in accordance with the terms of the Indenture and the Notes.

This discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel stating that we have received from, or there has been published by, the IRS a ruling or, since the date of execution of the Indenture, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants

The Indenture provides that upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading "—Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the Indenture, as well as any additional covenants set forth in the applicable prospectus supplement; and
- any omission to comply with those covenants will not constitute a default or an event of default with respect to the Notes, which we refer to as a "covenant defeasance."

The conditions include:

- depositing with the Trustee money, U.S. government obligations and/or foreign government obligations that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on the notes on the stated maturity of those payments in accordance with the terms of the Indenture and the Notes; and
- delivering to the Trustee an opinion of counsel to the effect that the holders of the Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default

In the event we exercise our option to effect covenant defeasance with respect to any series of the Notes and the Notes of that series are declared due and payable because of the occurrence of any event of default, the amount of money, U.S. government obligations and/or foreign government obligations on deposit with the Trustee will be sufficient to pay amounts due on the Notes of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the notes of that series at the time of the acceleration resulting from the event of default. In such a case, we would remain liable for those payments.

Concerning the Trustee

The Bank of New York Mellon Trust Company, N.A. is Trustee under the Indenture.

Governing Law

The Indenture and the Notes, including any claim or controversy arising out of or relating to the Indenture or the Notes, are governed by the laws of the State of New York.

GRANT OF STOCK OPTION AGREEMENT

THE SPECIFIC TERMS OF YOUR STOCK OPTION ARE FOUND IN THE PAGES RELATING TO THE GRANT OF STOCK OPTIONS FOUND ON MERRILL LYNCH BENEFITS WEBSITE (OR THE WEBSITE OF ANY SUCCESSOR COMPANY TO MERRILL LYNCH BANK & TRUST CO., FSB) (THE " AWARD NOTICE ") WHICH ACCOMPANIES THIS DOCUMENT. THE TERMS OF THE AWARD NOTICE ARE INCORPORATED INTO THIS GRANT OF STOCK OPTIONS.

On the Grant Date, specified in the Award Notice, Amgen Inc., a Delaware corporation (the " Company"), has granted to you, the grantee named in the Award Notice, under the plan specified in the Award Notice (the " Plan"), an option (the "Option") to purchase the number of shares of the $0.0001 par value common stock of the Company (the "Shares") specified in the Award Notice, pursuant to the terms set forth in this Stock Option Agreement, any special terms and conditions for your country set forth in the attached Appendix A and the Award Notice (together, the " Agreement"). This Option is not intended to qualify and will not be treated as an "incentive stock option" within the meaning of Section 422 of the U.S. Internal Revenue Code of 1986, as amended (together with the regulations and other official guidance promulgated thereunder, the "Code"). Capitalized terms not defined herein shall have the meanings assigned to such terms in the Plan.

The terms and conditions of your Option are as follows:

I. Subject to the terms and conditions of the Plan and this Agreement, on each Vesting Date the Option shall vest with respect to the number of Shares indicated on the Vesting Schedule, provided that you have remained continuously and actively employed with the Company or an Affiliate (as defined in the Plan) through each applicable Vesting Date, unless [(i) your employment has terminated due to your Voluntary Termination (as defined in Section IV(A)(5)) or (ii)]* you experience a Qualified Termination (as defined in Section IV(B)(4)), or as otherwise determined by the Company in the exercise of its discretion as provided in Section IV(A)(7). This Option may only be exercised for whole shares of the Common Stock, and the Company shall be under no obligation to issue any fractional Shares to you. Subject to the limitations contained herein, this Option shall be exercisable with respect to each installment on or after the applicable Vesting Date. Notwithstanding anything herein to the contrary, the Vesting Schedule may be accelerated (by notice in writing) by the Company in its sole discretion at any time during the term of this Option. In addition, if not prohibited by local law, vesting may be suspended by the Company in its sole discretion during a leave of absence as provided from time to time according to Company policies and practices; provided, that, in no event shall any such suspension extend the term of this Option beyond the Expiration Date set forth on the Award Notice and in this Agreement.

[i] *Section IV(A)(5) of this Agreement is not applicable to awards identified by the Administrator as new hire, retention or promotion grants and the provisions of such section shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

II. (1) The per share exercise price of this Option is the Grant Price as defined in the Award Notice, being not less than the Fair Market Value of the Common Stock on the date of grant of this Option.

(2) To the extent permitted by applicable statutes and regulations, payment of the exercise price per share is due in full upon exercise of all or any part of each installment which has become exercisable by you by means of (i) cash or a check, (ii) any cashless exercise procedure through the use of a brokerage arrangement approved by the Company, or (iii) any other form of legal consideration that may be acceptable to the Board or the Committee in their discretion.

(3) To the extent permitted by applicable statutes and regulations, if, at the time of exercise, the Company's Common Stock is publicly traded and quoted regularly in the Wall Street Journal, payment of the exercise price may be made by delivery of already-owned Shares of a value equal to the exercise price of the Shares for which this Option is being exercised. The already-owned Shares must have been owned by you for the period required to avoid adverse accounting treatment and owned free and clear of any liens, claims, encumbrances or security interests. Payment may also be made by a combination of cash and already-owned Shares.

Notwithstanding the foregoing, the Company reserves the right to restrict the methods of payment of the exercise price if necessary or advisable to comply with applicable law or regulation, as determined by the Company in its sole discretion.

III. Notwithstanding anything to the contrary contain herein, the Company shall not take any actions that would violate the Securities Act, the Exchange Act, the Code, or any other securities or tax or other applicable law or regulation, or the rules of any Securities Exchange. The Company, in its sole discretion, may impose any timing or other restrictions with respect to the exercise of this Option arising from compliance with any securities or tax laws or other rules or regulations. Notwithstanding anything to the contrary contained herein, this Option may not be exercised and no Shares underlying the Option will be issued unless such Shares are then registered under the Securities Act, or, if such Shares are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act, and that the issuance satisfies all other applicable legal requirements. If the Option cannot be

exercised and expires during this period, you will forfeit the Option and no Shares or value will be transferred to you.

IV. (A) The term of this Option commences on the Grant Date and, unless sooner terminated as set forth below or in the Plan, terminates on the [_____ (__th)] anniversary of the Grant Date (the "Expiration Date"). This Option shall terminate prior to the Expiration Date as follows: three (3) months after the termination of your employment with the Company or an Affiliate (as defined in the Plan) for any reason or for no reason, including if your employment is terminated by the Company or an Affiliate without Cause (as defined below), or in the event of any other termination of your employment caused directly or indirectly by the Company or an Affiliate, unless:

(1) such termination of your employment is due to your Permanent and Total Disability (as defined below), in which case the Option shall terminate on the earlier of the Expiration Date or five (5) years after termination of your employment and the vesting of the Option shall be accelerated and the Option shall be fully exercisable, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), as of the day immediately preceding such termination of your employment with respect to the Option, except that if the Option was granted in the calendar year in which such termination occurs, the Option shall be accelerated to vest with respect to a number of Shares equal to the number of Shares subject to the Option multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any portion of the Option (if any) that remains unvested shall automatically expire and terminate on the date of the termination of your active employment due to your Permanent and Total Disability without consideration therefor;

(2) such termination of your employment is due to your death, in which case the Option shall terminate on the earlier of the Expiration Date or five (5) years after your death and the vesting of the Option shall be accelerated and the Option shall be fully exercisable as of the day immediately preceding your death with respect to the Option, except that if the Option was granted in the calendar year in which your death occurs the Option shall be accelerated to vest with respect to a number of Shares equal to the number of Shares subject to the Option multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any portion of the Option (if any) that remains unvested shall automatically expire and terminate on the date of termination of your active employment due to your death without consideration therefor;

(3) during any part of such three (3) month period, this Option is not exercisable solely because of the condition set forth in Section III above, in which event this Option shall not terminate until the earlier of the Expiration Date or until it shall have been exercisable for an aggregate period of three (3) months after the termination of your employment;

(4) exercise of this Option within three (3) months after termination of your employment with the Company or with an Affiliate would result in liability under Section 16(b) of the Exchange Act, in which case this Option will terminate on the earliest of: (a) the tenth (10th) day after the last date upon which exercise would result in such liability; (b) six (6) months and ten (10) days after the termination of your employment with the Company or an Affiliate; or (c) the Expiration Date;

(5) [such termination of your employment is due to your voluntary termination (and such voluntary termination is not the result of Permanent and Total Disability (as defined below)) after you are at least sixty five (65) years of age, or after you are at least fifty-five (55) years of age and have been an employee of the Company and/or an Affiliate for at least ten (10) years in the aggregate as determined by the Company in its sole discretion according to Company policies and practices as in effect from time to time ("Voluntary Termination"), in which case this Option shall terminate on the earlier of the Expiration Date or five (5) years after termination of your employment and the unvested portions of this Option will become exercisable pursuant to the Vesting Schedule without regard to your Voluntary Termination of your employment prior to the Vesting Date, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), with respect to the Option; if the Option was granted in the calendar year in which your Voluntary Termination occurs, the Option will become exercisable pursuant to the Vesting Schedule only with respect to a number of Shares equal to the number of Shares subject to the Option multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any portion of the Option (if any) that remains unvested shall automatically expire and terminate on the date of the termination of your active employment due to your Voluntary Termination without consideration therefor; notwithstanding the definition of Voluntary Termination set forth above, if the Company receives an opinion of counsel that there has been a legal judgment and/or legal development in your jurisdiction that would likely result in the favorable treatment upon Voluntary Termination described above being deemed unlawful and/or discriminatory, then the Committee will not apply the favorable treatment described above;][Reserved]*

(6) such termination of your employment is due to a Qualified Termination, in which case, the Option shall terminate on the earlier of (a) the date that is three (3) months following the date of such Qualified Termination or (b) the Expiration Date, and, to the extent permitted by applicable law, the vesting of the Option shall be accelerated and the Option shall be fully exercisable as of the day immediately prior to the Qualified Termination; or

(7) the Company determines, in its sole discretion at any time during the term of this Option, in writing, to otherwise extend the period of time during which this Option will vest and may be exercised after termination of your employment; provided, that, in no event shall any such extension extend the term of this Option beyond the Expiration Date set forth on the Award Notice and in this Agreement.

However, in any and all circumstances and except to the extent the Vesting Schedule has been accelerated by the Company in its sole discretion during the term of this Option or as a result of your Permanent and Total Disability or death as provided in Sections IV(A)(1) or IV(A)(2) above, respectively, [as a result of your Voluntary Termination as provided in Section IV(A)(5) above,]* as a result of a Qualified Termination as provided in Section IV(A)(6) above or as otherwise determined by the Company in the exercise of its discretion as provided in Section IV(A)(7) above, this Option may be exercised following termination of your employment only as to that number of Shares as to which it was exercisable on the date of termination of your employment under the provisions of Section I of this Agreement.

[ii] *Section IV(A)(5) of this Agreement is not applicable to awards identified by the Administrator as new hire, retention or promotion grants and the provisions of such section shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

(B) For purposes of this Option:

(1) "termination of your employment" shall mean the last date you are either an active employee of the Company or an Affiliate or actively engaged as a Director to the Company or an Affiliate; in the event of termination of your employment (whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive options and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively employed and will not be extended by any notice period (*e.g.*, active employment would not include any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where you are

employed or the terms of your employment agreement, if any). Your right, if any, to exercise the Option after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law. The Administrator shall have the exclusive discretion to determine when you are no longer actively providing services for purposes of this Agreement (including whether you may still be considered to be providing services while on a leave of absence);

(2) "Cause" shall mean (i) your conviction of a felony (or similar crime under applicable law, as determined by the Company), or (ii) your engaging in conduct that constitutes willful gross neglect or willful gross misconduct in carrying out your duties, resulting, in either case, in material economic harm to the Company or any Affiliate, unless you believed in good faith that such conduct was in, or not contrary to, the best interests of the Company or any Affiliate. For purposes of clause (ii) above, no act, or failure to act, on your part shall be deemed "willful" unless done, or omitted to be done, by you not in good faith;

(3) "Permanent and Total Disability" shall have the meaning ascribed to such term under Section 22(e)(3) of the Code and with such permanent and total disability being certified prior to termination of your employment by (a) the U.S. Social Security Administration, (b) the comparable governmental authority applicable to an Affiliate, (c) such other body having the relevant decision-making power applicable to an Affiliate, or (d) an independent medical advisor appointed by the Company in its sole discretion, as applicable, in any such case;

(4) "Qualified Termination" shall mean

(a) if you are an employee who participates in the Change of Control Plan (as defined below), your termination of employment within two (2) years following a Change of Control (i) by the Company other than for Cause, Disability (as defined below) or as a result of your death, or (ii) by you for Good Reason (as defined in the Change of Control Plan); or

(b) if you are an employee who does not participate in the Change of Control Plan or the Change of Control Plan is no longer in effect, your termination of employment within two (2) years following a Change of Control by the Company other than for Cause, Disability (as defined below) or as a result of your death;

(5) "Change of Control" shall mean the occurrence of any of the following:

(a) the acquisition (other than from the Company) by any person, entity or "group," within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (excluding, for this purpose, the Company or any of its Affiliates, or any employee benefit plan of the Company

or any of its Affiliates which acquires beneficial ownership of voting securities of the Company), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of fifty percent (50%) or more of either the then outstanding Shares or the combined voting power of the Company's then outstanding voting securities entitled to vote generally in the election of directors; or

(b) the consummation by the Company of a reorganization, merger, consolidation, (in each case, with respect to which persons who were the stockholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than fifty percent (50%) of the combined voting power entitled to vote generally in the election of directors of the reorganized, merged or consolidated company's then outstanding voting securities) or a liquidation or dissolution of the Company or of the sale of all or substantially all of the assets of the Company.

Notwithstanding anything herein or in any Award Agreement to the contrary, if a Change of Control constitutes a payment event with respect to any Award that is subject to United States income tax and which provides for a deferral of compensation that is subject to Section 409A of the Code, the transaction or event described in subsection (a) or (b), (c) above must also constitute a "change in control event," as defined in U.S. Treasury Regulation §1.409A-3(i)(5), in order to constitute a Change of Control for purposes of payment of such Award.

(6) "Change of Control Plan" shall mean the Company's change of control and severance plan, including the Amgen Inc. Change of Control Severance Plan, as amended and restated, effective as of December 9, 2010 (and any subsequent amendments thereto), or any equivalent plan governing the provision of benefits to eligible employees upon the occurrence of a Change of Control (including resulting from a termination of employment that occurs within a specified time period following a Change of Control), as in effect immediately prior to a Change of Control; and

(7) "Disability" shall be determined in accordance with the Company's long-term disability plan as in effect immediately prior to a Change of Control.

V. (A) To the extent specified above, this Option may be exercised by delivering a notice of exercise in person, by mail, via electronic mail or facsimile or by other authorized method designated by the Company, together with the exercise price to the Company Stock Administrator, or to such other person as the Company Stock Administrator may designate, during regular business hours, together with such additional documents as the Company may then require pursuant to Section 7.2(b) of the Plan.

(B) Regardless of any action the Company or your actual employer (the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items related

to your participation in the Plan and legally applicable to you ("Tax Obligations"), you acknowledge that the ultimate liability for all Tax Obligations is and remains your responsibility and may exceed the amount, if any, actually withheld by the Company and/or your Employer. You further acknowledge that the Company and/or your Employer: (a) make no representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Option grant, including, but not limited to, the grant, vesting or exercise of the Option, the subsequent sale of Shares acquired pursuant to such exercise and the receipt of any dividends; and (b) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Option to reduce or eliminate your liability for Tax Obligations or achieve any particular tax result. Furthermore, if you become subject to tax in more than one jurisdiction, you acknowledge that the Company and/or your Employer (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction.

(C) Prior to any relevant taxable or tax withholding event, as applicable, you shall pay or make adequate arrangements satisfactory to the Company and/or your Employer to satisfy all Tax Obligations. In this regard, you authorize the Company and/or your Employer, or their respective agents, at their discretion, to satisfy all applicable Tax Obligations by one or a combination of the following:

(1) withholding from your wages or other cash compensation paid to you by the Company and/or your Employer;

(2) withholding from proceeds of the sale of Shares acquired upon exercise of the Option either through a voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or

(3) withholding in Shares to be issued or cash to be paid upon exercise of the Option, provided that, if Shares are withheld, the Company and your Employer shall only withhold an amount of Shares with a fair market value equal to the Tax Obligations.

Depending on the withholding method, the Company may withhold or account for Tax Obligations by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates. If the Tax Obligations are satisfied by withholding in Shares, for tax purposes, you are deemed to have been issued the full number of Shares subject to the exercised Option, notwithstanding that a number of the Shares is held back solely for the purpose of paying the Tax Obligations due as a result of any aspect of your participation in the Plan.

(D) Finally, you shall pay to the Company or your Employer any amount of Tax Obligations that the Company or your Employer may be required to withhold or account for as a result of your participation in the Plan that cannot be satisfied by the means previously described. You agree to take any further actions and execute any additional documents as may be necessary to effectuate the provisions of this Section V. Notwithstanding anything to the contrary contained herein, the Company may refuse to issue or deliver the Shares or the proceeds of the sale of Shares if you fail to comply with your obligations in connection with the Tax Obligations.

VI. This Option is not transferable, except by will or the laws of descent and distribution, and is exercisable during your life only by you except if you have named a trust created for the benefit of you, your spouse, or members of your immediate family (a "Trust") as beneficiary of this Option, this Option may be exercised by the Trust after your death.

VII. Any notices provided for in this Option or the Plan shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company Stock Administrator. Such notices may be given using any automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, as approved by the Company.

VIII. This Option is subject to all the provisions of the Plan and its provisions are hereby made a part of this Option, including without limitation the provisions of Articles 6 and 7 of the Plan relating to Options, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Option and those of the Plan, the provisions of the Plan shall control.

IX. ***In order for the Company to facilitate your participation in the Plan, the Company and your Employer must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.***

You understand that the Company and your Employer may hold certain personal information about you, including your name, home address and telephone number, email address, date of birth, social insurance number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other

entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor, for the purposes of implementing, administering and managing the Plan ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received upon exercise of this Option may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Transfers of personal data among Company and its group entities follow applicable laws and our Binding Corporate Rules (BCRs). For more information on Company's BCRs, please visit http://www.amgen.com/bcr/. You acknowledge that the collection, use and transfer of your personal data is necessary to facilitate to your participation in the Plan, as well as to grant you Options or other equity awards and administer or maintain such awards.

You may correct or update your personal data previously provided to Company, by completing the form located at https://preferences.amgen.com. Subject to applicable law, you may have additional rights, including the right to object and/or request destruction of your personal data. To exercise these rights, where applicable, please contact your local human resources representative.

X. The terms of this Option shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Option is made and/or to be performed.

XI. Notwithstanding any provision of this Option to the contrary, if you are employed by the Company or an Affiliate in any of the countries identified in the attached Appendix A (which constitutes a part of this Agreement), are subject to the laws of any foreign jurisdiction, or relocate to one of the countries included in the attached Appendix A, the Option granted hereunder shall be subject to any special terms and conditions for your country set forth in Appendix A and the following additional terms and conditions:

a. the terms and conditions of this Option, including Appendix A, are deemed modified to the extent necessary or advisable to comply with applicable foreign laws or facilitate the administration to the Plan;

b. if applicable, the effectiveness of this Option is conditioned upon its compliance with any applicable foreign laws, regulations, rules or local

governmental regulatory exemption and subject to receipt of any required foreign regulatory approvals; and

c. the Company may take any other action before or after the date of this Option that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals.

XII. (A) In accepting this Option, you acknowledge, understand and agree that:

(1) the Plan is established voluntarily by the Company, is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan;

(2) the grant of this Option is exceptional, voluntary and occasional and does not create any contractual or other right to receive future awards of options, or benefits in lieu of options even if options have been awarded in the past;

(3) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(4) your participation in the Plan is voluntary;

(5) the grant of Options, the underlying Shares, and the income from and value of same, are not intended to replace any pension rights or compensation;

(6) neither the grant of options nor any provision of this Option, the Plan or the policies adopted pursuant to the Plan confer upon you any right with respect to employment or continuation of current employment and shall not interfere with the ability of your Employer to terminate your employment or service relationship (if any) at any time;

(7) in the event that you are not an employee of the Company or any Affiliate, the Option shall not be interpreted to form an employment contract or relationship with the Company or any Affiliate;

(8) the future value of the underlying Shares is unknown, indeterminable, and cannot be predicted with certainty;

(9) if the underlying Shares do not increase in value, this Option will have no value; if you exercise this Option and obtain Shares, the value of those Shares acquired upon exercise may increase or decrease in value, even below the Grant Price per Share;

(10) in consideration of the grant of this Option, no claim or entitlement to compensation or damages arises from forfeiture of options resulting from termination of your employment by the Company or an Affiliate (regardless of the reason for such termination and

whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), and you irrevocably release the Company and your Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, you shall be deemed irrevocably to have waived your entitlement to pursue such claim;

(11) unless otherwise agreed with the Company, the Options, the underlying Shares, and the income from and value of same, are not granted as consideration for, or in connection with, the service you may provide as a director of an Affiliate of the Company;

(12) except as otherwise provided in this Agreement or the Plan, the Options and the benefits evidenced by this Agreement do not create any entitlement to have the Options or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(13) the following provisions apply only if you are providing services outside the United States:

(i) for employment law purposes outside the United States, the Option, underlying Shares, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments; and

(ii) neither the Company, your Employer nor any Affiliate of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Option or of any amounts due to you pursuant to the exercise of the Option or the subsequent sale of any Shares acquired upon exercise of the Option.

(B) The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan, or your acquisition or sale of the underlying Shares. You should consult with your own personal tax, legal and financial advisors regarding your participation in the Plan before taking any action related to the Plan.

XIII. If one or more of the provisions of this Option shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Option to be construed so as to foster the intent of this Option and the Plan.

XIV. By electing to accept this Agreement, you acknowledge that you are sufficiently proficient in English, or have consulted with an advisor who is sufficiently proficient in English, so as to allow you to understand the terms and conditions of this Agreement. Furthermore, if you have received this Option or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

XV. This Option is not intended to constitute "nonqualified deferred compensation" within the meaning of Code Section 409A, but rather is intended to be exempt from the application of Code Section 409A. To the extent that this Option is nevertheless deemed to be subject to Code Section 409A for any reason, this Option shall be interpreted in accordance with Code Section 409A and U.S. Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date. Notwithstanding any provision herein to the contrary, in the event that following the Grant Date, the Committee (as defined in the Plan) determines that this Option may be or become subject to Code Section 409A, the Committee may adopt such amendments to the Plan and/or this Option or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Plan and/or this Option from the application of Code Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Option, or (b) comply with the requirements of Code Section 409A; provided, however, that this paragraph shall not create an obligation on the part of the Committee to adopt any such amendment, policy or procedure or take any such other action.

XVI. By electing to accept this Option, you acknowledge receipt of this Option and hereby confirm your understanding that the terms set forth in this Option constitute, subject to the terms of the Plan, which terms shall control in the event of any conflict between the Plan and this Option, the entire agreement and understanding of the parties with respect to the matters contained herein and supersede any and all prior agreements, arrangements and understandings, both oral and written, between the parties concerning the subject matter of this Option. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

XVII. The Company reserves the right to impose other requirements on your participation in the Plan, on this Option and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XVIII. This Option and all compensation payable with respect to it shall be subject to recovery by the Company pursuant to any and all of the Company's policies with respect to the

recovery of compensation, as they shall be in effect and may be amended from time to time, to the maximum extent permitted by applicable law.

XIX. You acknowledge that a waiver by the Company of breach of any provision of this Option shall not operate or be construed as a waiver of any other provision of this Option, or of any subsequent breach by you or any other grantee.

Very truly yours,

AMGEN INC.

By_____
Duly authorized on behalf
of the Board of Directors

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMENDED AND RESTATED AMGEN INC. 2009 EQUITY INCENTIVE PLAN, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

GRANT OF STOCK OPTION (BY COUNTRY)

Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Plan and/or the Agreement to which this Appendix is attached.

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Options granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern any Options granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of November 2019. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you exercise the Options and acquire Shares under the Plan, or when you subsequently sell Shares acquired under the Plan.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

TERMS AND CONDITIONS

Method of Exercise. The following provision replaces Section II(3):

To the extent permitted by applicable statutes and regulations, payment of the exercise price per Share is due in full in cash or check upon exercise of all or any part of this Option which has become exercisable by you. Due to legal restrictions outside the U.S., you are not permitted to pay the exercise price by delivery of already-owned Shares of a value equal to the exercise price of the Shares for which this Option is being exercised. Furthermore, payment may not be made by a combination of cash and already-owned Common Stock.

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the Shares are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares (*e.g.*, Options) or rights linked to the value of Shares during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account, Tax Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Plan (including from any dividends received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

ALL EUROPEAN ECONOMIC AREA ("EEA") / EUROPEAN UNION ("EU") JURISDICTIONS, UNITED KINGDOM AND SWITZERLAND

TERMS AND CONDITIONS

Data Privacy Notice. This provision replaces Section IX of the Agreement:

Please refer to the Fair Processing Notice previously provided by your local human resources representative, which notice governs the collection, use and transfer of your personal data necessary for the Company to facilitate your participation in the Plan. If you have any questions or concerns regarding the Fair Processing Notice, including questions about your rights afforded thereunder, you should contact your local human resources representative or send an email to staffing-hrconnect@amgen.com.

For purposes of implementing, administering and managing the Plan, Company and your Employer may hold certain personal data about you, including your name, home address and telephone number, email address, date of birth, social insurance number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received upon exercise of this Option may be deposited.

ARGENTINA

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Argentina, you may be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Labor Law Acknowledgement. The following provision supplements Section XII of the Agreement:

In accepting this Option, you acknowledge, understand and agree that the grant of the Option is made by the Company (not your Employer) in its sole discretion and that the value of the Option or any Shares acquired under the Plan shall not constitute salary or wages for any purpose under Argentine labor law including, but not limited to, the calculation of (i) any labor benefits including, without limitation, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (ii) any termination or severance indemnities or similar payments.

NOTIFICATIONS

Securities Law Information. Neither the Option nor the underlying Shares are publicly offered or listed on any stock exchange in Argentina.

Exchange Control Information. Exchange control regulations in Argentina are subject to frequent change. You should consult with your personal legal advisor regarding any exchange control obligations that you may have prior to receiving proceeds from the sale of any Shares issued upon exercise of the Option or any dividends paid on such Shares. You must comply with any and all Argentine currency exchange restrictions, approvals and reporting requirements in connection with your participation in the Plan.

AUSTRALIA

NOTIFICATIONS

Securities Law Information. If you acquire Shares under the Plan and offer the Shares for sale to a person or entity resident in Australia, the offer may be subject to disclosure requirements under Australian law. You should consult with your own legal advisor before making any such offer in Australia.

Tax Information. Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies to the Options granted under the Plan, such that the Options are intended to be subject to deferred taxation.

Exchange Control Information. If you are an Australian resident, exchange control reporting is required for cash transactions exceeding AUD10,000 and for international fund transfers. If an Australian bank is assisting with the transaction, the bank will file the report on your behalf. If there is no Australian bank involved in the transfer, you will be required to file the report.

AUSTRIA

NOTIFICATIONS

Exchange Control Information. If you are an Austrian resident and you hold Shares acquired under the Plan outside of Austria, you must submit a report to the Austrian National Bank. An exemption applies if the value of the Shares as of any given quarter does not meet or exceed

€30,000,000 or if the value of the Shares in any given year as of December 31 does not meet or exceed €5,000,000. If the former threshold is exceeded, quarterly obligations are imposed, whereas if the latter threshold is exceeded, annual reports must be given. The quarterly reporting date is as of the last day of the respective quarter and the deadline for filing the quarterly report is the 15th day of the month following the end of the respective quarter. The annual reporting date is December 31 and the deadline for filing the annual report is January 31 of the following year.

A separate reporting requirement applies when you sell Shares acquired under the Plan or receive a cash dividend paid on such Shares. In that case, there may be exchange control obligations if the cash proceeds are held outside of Austria. If the transaction volume of all cash accounts abroad meets or exceeds €10,000,000, the movements and balances of all accounts must be reported monthly, as of the last day of the month, on or before the 15th day of the following month, on the prescribed form (*Meldungen SI-Forderungen und/oder SI-Verpflichtungen*).

BELGIUM

NOTIFICATIONS

Taxation of the Option. Your tax consequences will vary depending on when you accept the Option. If you accept the Option in writing within 60 days of the offer date, you will be subject to taxation on the 60th day after the offer date. If you accept the Option more than 60 days after the offer date, you will be subject to taxation at exercise. Please refer to the additional materials that will be delivered to you for a more detailed description of the tax consequences of accepting the Option. You should consult your personal tax advisor prior to accepting the Option.

Tax Reporting; Foreign Asset/Account Reporting Information. If you are a Belgian resident, you are required to report any taxable income attributable to the Option granted hereunder on your annual tax return. You are also required to report any securities (*e.g.*, Shares acquired under the Plan) held and bank accounts (including brokerage accounts) opened and maintained outside of Belgium on your annual tax return. In a separate report, you are required to provide the National Bank of Belgium with the account details of any such foreign accounts (including the account number, bank name and country in which such account was opened). This report, as well as information on how to complete it, can be found on the website of the National Bank of Belgium, www.nbb.be, under the *Kredietcentrales / Centrales des crédits* caption.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the Option, you acknowledge that you agree to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the exercise of the Option, the sale of Shares acquired under the Plan and the payment of dividends on such Shares.

Nature of Grant. This provision supplements Section XII of the Agreement:

In accepting this Option, you acknowledge (i) that you are making an investment decision, (ii) that the Options will be exercisable by you only if the vesting conditions are met and any necessary services are rendered by you during the vesting period set forth in the Vesting Schedule, and (iii) that the value of the underlying Shares is not fixed and may increase or decrease in value over the vesting period without compensation to you.

NOTIFICATIONS

Exchange Control Information. If you are resident or domiciled in Brazil, you will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights exceeds US$100,000. If such amount exceeds US$100,000,000, the referenced declaration must be submitted quarterly. Assets and rights that must be reported include the following: (i) bank deposits; (ii) loans; (iii) financing transactions; (iv) leases; (v) direct investments; (vi) portfolio investments, including Shares acquired under the Plan; (vii) financial derivatives investments; and (viii) other investments, such as real estate. Please note that foreign individuals holding Brazilian visas are considered Brazilian residents for purposes of this reporting requirement and must declare at least the assets held abroad that were acquired subsequent to the date of admittance as a resident of Brazil. Individuals holding assets and rights outside of Brazil valued at less than US$100,000 are not required to submit a declaration.

BULGARIA

NOTIFICATIONS

Exchange Control Information. If funds are remitted to purchase Shares abroad, a declaration of the purpose of the remittance must be provided to the local bank that is transferring the funds. If the funds are remitted to a bank outside the European Union and the amount exceeds BGN 30,000, documentation evidencing the underlying transaction (for instance a copy of the option agreement) must be provided.

Foreign Asset/Account Reporting Information. You will be required to annually file statistical forms with the Bulgarian National Bank regarding your receivables in bank accounts abroad as well as your securities abroad (*e.g.*, Shares acquired under the Plan) if the total sum of all such receivables and securities equals or exceeds BGN 50,000 as of the previous calendar year-end. The reports are due by March 31. You should contact your bank in Bulgaria for additional information regarding this requirement.

CANADA

TERMS AND CONDITIONS

Termination of Employment. Section IV(B)(1) of the Agreement is amended to read as follows:

(1) "termination of your employment" shall mean the last date you are either an active employee of the Company or an Affiliate or actively engaged as Director to the Company or an Affiliate; in

the event of involuntary termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive the Option and vest under the Plan, if any, will terminate effective as of the date that is the earlier of: (1) the date you receive written notice of termination of employment from the Company or your Employer, or (2) the date you are no longer actively employed by the Company or your Employer regardless of any notice period or period of pay in lieu of such notice required under local law (including, but not limited to statutory law, regulatory law and/or common law). Your right, if any, to acquire Shares pursuant to the Option after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law.

The following provisions will apply to you if you are a resident of Quebec:

Language Consent. The parties acknowledge that it is their express wish that this Agreement, as well as all documents, notices, and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English.

Consentement Relatif à la Langue Utilisée. *Les parties reconnaissent avoir exigé la rédaction en anglais de cette convention (« Agreement »), ainsi que de tous documents, avis et procédures judiciaires, exécutés, donnés ou intentés en vertu de, ou liés directement ou indirectement à, la présente convention.*

Data Privacy Notice. This provision supplements Section IX of the Agreement:

You hereby authorize the Company and the Company's representative to discuss with and obtain all relevant information from all personnel (professional or not) involved in the administration of the Plan. You further authorize the Company, your Employer and Merrill Lynch Bank & Trust Co., FSB (or any other stock plan service provider) to disclose and discuss your participation in the Plan with their advisors. You also authorize the Company and your Employer to record such information and keep it in your file.

NOTIFICATIONS

Securities Law Information. You are permitted to sell Shares acquired through the Plan through the designated broker appointed under the Plan, if any, provided that the resale of such Shares takes place outside of Canada through the facilities of a stock exchange on which the Shares are listed (*e.g.*, the Nasdaq Global Select Market).

Foreign Asset/Account Reporting Information. Specified foreign property, including Shares, Options and other rights to receive Shares of a non-Canadian company held by a Canadian resident employee generally must be reported annually on a Form T1135 (Foreign Income Verification Statement) if the total cost of the employee's specified foreign property exceeds C$100,000 at any time during the year. Thus, such Options must be reported – generally at nil cost – if the C$100,000 cost threshold is exceeded because other specified foreign property is held by the employee. When

Shares are acquired, their cost generally is the adjusted cost base ("ACB") of the Shares. The ACB ordinarily would equal the fair market value of the Shares at the time of acquisition, but if the employee owns other shares of the same company, this ACB may have to be averaged with the ACB of the other shares.

CHINA

TERMS AND CONDITIONS

The following terms apply only to nationals of the People's Republic of China (the "PRC") residing in the PRC:

Method of Exercise. Due to legal restrictions in the PRC, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Termination of Employment. To comply with requirements imposed by the State Administration of Foreign Exchange, to the extent that, under Section IV of the Agreement, you may exercise any Option after termination of your employment, you will be permitted to exercise such Option for the shorter of the period set forth in Section IV of the Agreement and six (6) months from the date of termination of your employment; any unexercised Option shall immediately lapse six (6) months following the termination of your employment.

The Company reserves the right to impose such further restrictions or conditions as may be necessary to comply with changes in applicable local laws in the PRC.

Please note that the above provisions will apply to all Options granted to you under the Plan, as well as to any Options granted to you in the past under the Plan.

Exchange Control Requirements. You understand and agree that, pursuant to PRC exchange control requirements, you will be required to repatriate the cash proceeds from the sale of the Shares issued upon the exercise of the Option to China. You further understand that, under applicable laws, such repatriation of your cash proceeds will need to be effectuated through a special exchange control account established by the Company or any Affiliate, including your Employer, and you hereby consent and agree that any proceeds from the sale of the Shares may be transferred to such special account prior to being delivered to you. You also understand that the Company will deliver the proceeds to you as soon as possible, but that there may be delays in distributing the funds to you due to exchange control requirements in China. Proceeds may be paid to you in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to you in U.S. dollars, you will be required to set up a U.S. dollar bank account in China so that the proceeds may be deposited into this account. If the proceeds are paid to you in local currency, the Company is under no obligation to secure any particular currency conversion rate and the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. You agree to bear

any currency fluctuation risk between the date the Option is exercised and the time that (i) the Tax Obligations are converted to local currency and remitted to the tax authorities, and (ii) net proceeds are converted to local currency and distributed to you. You acknowledge that neither the Company nor any Affiliate will be held liable for any delay in delivering the proceeds to you. You agree to sign any agreements, forms and/or consents that may be requested by the Company or the Company's designated broker to effectuate any of the remittances, transfers, conversions or other processes affecting the proceeds. You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in China.

COLOMBIA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XII of the Agreement:

You acknowledge that pursuant to Article 15 of Law 50/1990 (Article 128 of the Colombian Labor Code), the Plan and related benefits do not constitute a component of "salary" for any purpose. Therefore, they are considered to be of an extraordinary nature and will not be included and/or considered for purposes of calculating any and all labor benefits, such as legal/fringe benefits, vacations, indemnities and/or any other labor-related amounts which may be payable.

NOTIFICATIONS

Securities Law Information. The Shares are not and will not be registered with the Colombian registry of publicly traded securities (*Registro Nacional de Valores y Emisores*) and therefore the Shares may not be offered to the public in Colombia. Nothing in this document should be construed as the making of a public offer of securities in Colombia.

Exchange Control Information. Investment in assets located abroad (such as Shares acquired under the Plan) does not require prior approval from the Central Bank (*Banco de la República*). Nonetheless, such investments are subject to registration before the Central Bank as foreign investments held abroad, regardless of value. In addition, you must file an annual informative return with the local tax authority detailing assets you hold abroad, which must include the Shares acquired at exercise (every year as long as you keep them).

All payments for your investment originating in Colombia (and the liquidation of such investments) must be transferred through the Colombian foreign exchange market (*e.g.*, local banks), which includes the obligation to correctly complete and file the appropriate foreign exchange form (*declaración de cambio*).

CROATIA

NOTIFICATIONS

Exchange Control Information. Croatian residents may be required to report any foreign investments (including Shares acquired under the Plan) to the Croatian National Bank for statistical purposes. You should be aware that exchange control regulations in Croatia are subject to frequent change and you are solely responsible for ensuring your continued compliance with current Croatian exchange control laws.

CZECH REPUBLIC

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Proceeds from the sale of Shares and any dividends paid on such Shares may be held in a cash account abroad and you are no longer required to report the opening and maintenance of a foreign account to the Czech National Bank (the "CNB"), unless the CNB notifies you specifically that such reporting is required. Upon request of the CNB, you may need to file a notification within fifteen (15) days of the end of the calendar quarter in which you acquire Shares.

Exchange Control Information. Czech residents may be required to report the following transactions even in the absence of a request from the CNB: foreign direct investments with a value of 2,500,000 Kč or more in the aggregate or other foreign financial assets with a value of 200,000,000 Kč or more.

DENMARK

TERMS AND CONDITIONS

Danish Stock Option Act. In accepting this Option, you acknowledge that you have received an Employer Statement translated into Danish, which is being provided to comply with the Danish Stock Option Act, as amended with effect from January 1, 2019.

NOTIFICATIONS

Exchange Control Information. The requirement to report certain information to the Danish Tax Administration via Form V or K was eliminated effective January 1, 2019. However, you still must report the foreign bank/brokerage accounts and their deposits, and Shares held in a foreign bank or brokerage account in your tax return under the section on foreign affairs and income.

EGYPT

NOTIFICATIONS

Exchange Control Information. If you transfer funds into or out of Egypt in connection with the exercise of the Option or the receipt of sale proceeds, you are required to transfer the funds through a registered bank in Egypt.

FINLAND

There are no country-specific provisions.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the grant, you confirm having read and understood the Plan and Agreement which were provided in the English language. You accept the terms of these documents accordingly.

Consentement Relatif à la Langue Utilisée. *En acceptant l'attribution, vous confirmez avoir lu et compris le Plan et le Contrat, qui ont été communiqués en langue anglaise. Vous acceptez les termes de ces documents en connaissance de cause.*

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on a specific form together with the income tax return. Failure to comply could trigger significant penalties.

GERMANY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If your acquisition of Shares under the Plan leads to a qualified participation at any point during the calendar year, you will need to report the acquisition when you file your tax return for the relevant year. A qualified participation is attained if (i) the value of the Shares acquired exceeds €150,000 or (ii) in the unlikely event you hold Shares exceeding 10% of the Company's total Common Stock.

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank (*Bundesbank*). In case of payments in connection with securities (including proceeds realized upon the sale of Shares or the receipt of dividends), the report must be made by the 5th day of the month following the month in which the payment was received and must be filed electronically. The form of report (*Allgemeines Meldeportal Statistik*) can be

accessed via the *Bundesbank's* website (www.bundesbank.de) and is available in both German and English. You are responsible for satisfying any applicable reporting obligation.

GREECE

NOTIFICATIONS

Exchange Control Information. If you exercise the Option through a cash exercise, withdraw funds from a bank in Greece and remit those funds out of Greece (in an amount exceeding €50,000), you may be required to submit a written application to the bank. The application will likely need to contain the following information: (i) amount and currency to be remitted; (ii) account to be debited; (iii) name and contact information of the beneficiary (the person or corporation to whom the funds are to be remitted); (iv) bank of the beneficiary with address and code number; (v) account number of the beneficiary; (vi) details of the payment such as the purpose of the transaction (*e.g.*, exercise of Option); and (vii) expenses of the transaction.

If you exercise the Option by way of a cashless method of exercise as described in Section II(2)(ii) of the Agreement, this application will not be required because no funds will be remitted out of Greece.

HONG KONG

TERMS AND CONDITIONS

Sale of Shares. Shares received at exercise are accepted as a personal investment. In the event that Shares are issued in respect of the Options within six (6) months of the Grant Date, you agree that you will not offer to the public or otherwise dispose of the Shares prior to the six (6)-month anniversary of the Grant Date.

NOTIFICATIONS

SECURITIES WARNING: *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You should exercise caution in relation to the offer. If you are in doubt about any of the contents of the Agreement, including this Appendix, or the Plan, you should obtain independent professional advice. The Option and any Shares issued in respect of the Option do not constitute a public offering of securities under Hong Kong law and are available only to members of the Board and Employees. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Option and any documentation related thereto are intended solely for the personal use of each member of the Board and/or Employee and may not be distributed to any other person.*

HUNGARY

There are no country-specific provisions.

ICELAND

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Iceland, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

NOTIFICATIONS

Exchange Control Information. Approval by the Central Bank of Iceland is no longer required to participate in the Plan, regardless of the value of the Shares acquired under the Plan. Despite the recent relaxation of the exchange control requirements, you should consult with your personal advisor to ensure compliance with applicable exchange control regulations in Iceland as such regulations are subject to frequent change. You are responsible for ensuring compliance with all exchange control laws in Iceland.

INDIA

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in India, you will not be permitted to pay the exercise price for Shares subject to the Option granted hereunder by a cashless "sell-to-cover" procedure, under which method a number of Shares with a value sufficient to cover the exercise price, brokerage fees and any applicable Tax Obligations would be sold upon exercise and you would receive only the remaining Shares subject to the exercised Option. The Company reserves the right to permit this procedure for payment of the exercise price in the future, depending on the development of local law.

NOTIFICATIONS

Exchange Control Information. If you remit funds out of India to purchase Shares at exercise of the Option granted hereunder, you are responsible for complying with applicable exchange control regulations. In particular, it will be your obligation to determine whether approval from the Reserve Bank of India is required prior to exercise or whether you have exhausted the investment limit of US$250,000 for the relevant fiscal year.

You understand that you must repatriate any cash dividends paid on Shares acquired under the Plan to India, as well as any proceeds from the sale of Shares acquired under the Plan within a prescribed

period of time (currently, within one hundred and eighty (180) days of receipt of cash dividends, and within ninety (90) days of receipt of sale proceeds), or such other period of time as may be required under applicable regulations. You will receive a foreign inward remittance certificate ("FIRC") from the bank where you deposit the foreign currency, and you must maintain the FIRC as proof of repatriation of funds in the event that the Reserve Bank of India or your Employer requests proof of repatriation. It is your responsibility to comply with these requirements.

Foreign Asset/Account Reporting Information. You are required to declare foreign bank accounts and any foreign financial assets (including Shares held outside of India) in your annual tax return. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor in this regard.

IRELAND

TERMS AND CONDITIONS

Nature of Grant. This provision supplements Section XII of the Agreement:

In accepting this Option, you acknowledge that the benefits received under the Plan will not be taken into account for any redundancy or unfair dismissal claim.

ITALY

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Italy, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Nature of Grant. In accepting this Option, you acknowledge that (1) you have received a copy of the Plan, the Agreement and this Appendix; (2) you have reviewed the applicable documents in their entirety and fully understand the contents thereof; and (3) you accept all provisions of the Plan, the Agreement and this Appendix.

For the Option granted, you further acknowledge that you have read and specifically and explicitly approve, without limitation, the following Sections of the Option Agreement: Section I, Section IV, Section V, Section X, Section XII, Section XIII, Section XIV, Section XVII and the Data Privacy Notice for All European Economic Area ("EEA") / European Union ("EU") Jurisdictions, United Kingdom and Switzerland in this Appendix.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Italian residents who, at any time during the fiscal year, hold foreign financial assets (including cash and Shares) which may generate income taxable in Italy are required to report these assets on their annual tax returns (UNICO Form, RW Schedule) for the year during which the assets are held, or on a special form if no tax return is due. These reporting obligations will also apply to Italian residents who are the beneficial owners of foreign financial assets under Italian money laundering provisions.

Foreign Financial Assets Tax. The fair market value of any Shares held outside of Italy is subject to a foreign assets tax. The fair market value is considered to be the value of the Shares on the Nasdaq Global Select Market on December 31 of the applicable year in which you held the Shares (or when the Shares are acquired during the course of the year, the tax is levied in proportion to the actual days of holding over the calendar year). You should consult with your personal tax advisor about the foreign financial assets tax.

JAPAN

NOTIFICATIONS

Exchange Control Information. If you acquire Shares valued at more than ¥100,000,000 in a single transaction, you must file a Securities Acquisition Report with the Ministry of Finance through the Bank of Japan within 20 days of the purchase of the Shares.

In addition, if you pay more than ¥30,000,000 in a single transaction for the purchase of Shares when you exercise the Option, you must file a Payment Report with the Ministry of Finance through the Bank of Japan by the 20th day of the month following the month in which the payment was made. The precise reporting requirements vary depending on whether or not the relevant payment is made through a bank in Japan.

A Payment Report is required independently from a Securities Acquisition Report. Therefore, if the total amount that you pay upon a one-time transaction for exercising the Option and purchasing Shares exceeds ¥100,000,000, then you must file both a Payment Report and a Securities Acquisition Report.

Foreign Asset/Account Reporting Information. You will be required to report to the Japanese tax authorities details of any assets held outside of Japan as of December 31st (including any Shares acquired under the Plan) to the extent such assets have a total net fair market value exceeding ¥50,000,000. Such report will be due by March 15 each year. You should consult with your personal tax advisor as to whether the reporting obligation applies to you and whether you will be required to include in the report details of any outstanding Options, Shares or cash that you hold.

JORDAN

There are no country-specific provisions.

KOREA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You are required to declare all foreign financial accounts (*e.g.* non-Korean bank accounts, brokerage accounts holding Shares, etc.) to the Korean tax authority and file a report regarding such accounts if the monthly balance of such accounts exceeds a certain threshold on any month-end date during a calendar year. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor to ensure compliance with this requirement.

LATVIA

There are no country-specific provisions.

LEBANON

NOTIFICATIONS

Securities Law Information. The Plan does not constitute the marketing or offering of securities in Lebanon pursuant to Law No. 161 (2011), the Capital Markets Law. Offerings under the Plan are being made only to eligible employees of your Employer, the Company or an Affiliate.

LITHUANIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you are required to submit an assets declaration, you should include assets held outside of Lithuania (*e.g.*, Shares).

MEXICO

TERMS AND CONDITIONS

Acknowledgement of the Agreement. In accepting the Option granted hereunder, you acknowledge that you have received a copy of the Plan, have reviewed the Plan and the Option Agreement, including this Appendix, in their entirety and fully understand and accept all provisions of the Plan and the Agreement, including this Appendix. You further acknowledge that you have read and specifically and expressly approve the terms and conditions of Section XII of the Agreement, in which the following is clearly described and established:

(1) Your participation in the Plan does not constitute an acquired right.

(2) The Plan and your participation in the Plan are offered by Amgen Inc. on a wholly discretionary basis.

(3) Your participation in the Plan is voluntary.

(4) Amgen Inc. and its Affiliates are not responsible for any decrease in the value of the Option granted and/or Shares issued under the Plan.

Labor Law Acknowledgement and Policy Statement. In accepting the Option granted hereunder, you expressly recognize that Amgen Inc., with registered offices at One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., is solely responsible for the administration of the Plan and that your participation in the Plan and acquisition of Shares do not constitute an employment relationship between you and Amgen Inc. since you are participating in the Plan on a wholly commercial basis and your sole employer is Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Based on the foregoing, you expressly recognize that the Plan and the benefits that you may derive from participation in the Plan do not establish any rights between you and your Employer, Amgen-Mexico, and do not form part of the employment conditions and/or benefits provided by Amgen-Mexico and any modification of the Plan or its termination shall not constitute a change or impairment of the terms and conditions of your employment.

You further understand that your participation in the Plan is as a result of a unilateral and discretionary decision of Amgen Inc.; therefore, Amgen Inc. reserves the absolute right to amend and/or discontinue your participation in the Plan at any time without any liability to you.

Finally, you hereby declare that you do not reserve to yourself any action or right to bring any claim against Amgen Inc. for any compensation or damages regarding any provision of the Plan or the benefits derived under the Plan, and you therefore grant a full and broad release to Amgen Inc., its Affiliates, stockholders, officers, agents or legal representatives with respect to any claim that may arise.

Spanish Translation

Reconocimiento del Otorgamiento. Al aceptar cualquier Opción bajo el presente documento, usted reconoce que ha recibido una copia del Plan, que ha revisado el mismo en su totalidad, así como también el Acuerdo de Opción, incluyendo este Apéndice, además que comprende y está de acuerdo con todas las disposiciones tanto del Plan y del Opción, incluyendo este Apéndice. Asimismo, usted reconoce que ha leído y manifiesta específicamente y expresamente la conformidad con los términos y condiciones establecidos en la Sección XII del Acuerdo de Opción, en los que se establece y describe claramente que:

(1) Su participación en el Plan de ninguna manera constituye un derecho adquirido.

(2) El Plan y su participación en el mismo son ofrecidos por Amgen Inc. de forma completamente discrecional.

(3) Su participación en el Plan es voluntaria.

(4) Amgen Inc. y sus Afiliados no son responsables de ninguna disminución en el valor de la opción otorgada y/o de las Acciones Comunes emitidas mediante el Plan.

Reconocimiento de la Ley Laboral y Declaración de Política. Al aceptar cualquier Opción bajo el presente, usted reconoce expresamente que Amgen Inc., con oficinas registradas localizadas en One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., es la única responsable de la administración del Plan y que su participación en el mismo y la adquisición de Acciones Comunes no constituyen de ninguna manera una relación laboral entre usted y Amgen Inc., debido a que su participación en el Plan es únicamente una relación comercial y que su único empleador es Amgen Mexico S.A. de C.V. (" Amgen-México"). Derivado de lo anterior, usted reconoce expresamente que el Plan y los beneficios a su favor que pudieran derivar de la participación en el mismo, no establecen ningún derecho entre usted y su empleador, Amgen – México, y no forman parte de las condiciones laborales y/o los beneficios otorgados por Amgen – México, y cualquier modificación del Plan o la terminación del mismo no constituirá un cambio o desmejora de los términos y condiciones de su trabajo.

Asimismo, usted entiende que su participación en el Plan es resultado de la decisión unilateral y discrecional de Amgen Inc., por lo tanto, Amgen Inc. se reserva el derecho absoluto de modificar y/o descontinuar su participación en el Plan en cualquier momento y sin ninguna responsabilidad para usted.

Finalmente, usted manifiesta que no se reserva ninguna acción o derecho que origine una demanda en contra de Amgen Inc., por cualquier compensación o daños y perjuicios, en relación con cualquier disposición del Plan o de los beneficios derivados del mismo, y en consecuencia usted exime amplia y completamente a Amgen Inc. de toda responsabilidad, como así también a sus Afiliadas, accionistas, directores, agentes o representantes legales con respecto a cualquier demanda que pudiera surgir.

NETHERLANDS

NOTIFICATIONS

Securities Law Information.

Attention! This investment falls outside AFM supervision.
No prospectus required for this activity.

NORWAY

There are no country-specific provisions.

POLAND

NOTIFICATIONS

Exchange Control Information. Polish residents holding foreign securities (including Shares) and maintaining accounts abroad must file reports with the National Bank of Poland if the aggregate value of Shares and cash held in such foreign accounts exceeds PLN 7,000,000. If required, the reports are due on a quarterly basis by the 20th day following the end of each quarter and must be filed on special forms available on the website of the National Bank of Poland. In addition, Polish residents are required to transfer funds through a bank account in Poland if the transferred amount in any single transaction exceeds a specified threshold (currently €15,000 (or PLN 15,000 if such transfer of funds is associated with the business activity of a consultant)). You must store all documents connected with any foreign exchange transactions you engage in for a period of five (5) years from the end of the year when such transactions were made. Penalties may apply for failure to comply with exchange control requirements.

PORTUGAL

TERMS AND CONDITIONS

Consent to Receive Information in English. You hereby expressly declare that you have full knowledge of the English language and have read, understood and fully accepted and agreed with the terms and conditions established in the Plan and Agreement.

Conhecimento da Lingua. *Por meio do presente, eu declaro expressamente que tem pleno conhecimento da língua inglesa e que li, compreendi e livremente aceitei e concordei com os termos e condições estabelecidas no Plano e no Acordo.*

PUERTO RICO

There are no country-specific provisions.

ROMANIA

NOTIFICATIONS

Exchange Control Information. Any transfer of funds exceeding €15,000 (whether via one transaction or several transactions that appear to be linked to each other) must be reported to the National Office for Prevention and Control of Money Laundering on specific forms by the relevant bank or financial institution. If you deposit proceeds from the sale of Shares or the receipt of dividends in a bank account in Romania, you may be required to provide the Romanian bank assisting with the transaction with appropriate documentation explaining the source of the income. You should consult with a legal advisor to determine whether you will be required to submit such documentation to the Romanian bank.

RUSSIA

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Russia, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Exchange Control Requirements. As the Shares are listed on a specified foreign stock exchange determined according to the Russian law "On the Securities Market," Russian residents may receive certain funds (*e.g.*, cash dividends and sale proceeds) directly into a foreign bank account held in an Organization for Economic Cooperation and Development ("OECD") country (such as the U.S.) or a Financial Action Task Force ("FATF") country without first repatriating such cash proceeds (as was previously required).

You understand and agree that, pursuant to Russian exchange control requirements, you may still be required to repatriate to Russia certain cash proceeds from the sale of the Shares issued to you upon exercise of the Option, unless such proceeds will be paid into and held in your brokerage account in the U.S., for example, for reinvestment purposes, or a different statutory exception applies, and you should consult with your personal legal advisor in this regard.

You agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in Russia.

Securities Law Requirements. The Option granted hereunder, the Agreement, including this Appendix, the Plan and all other materials you may receive regarding your participation in the Plan or the Option granted hereunder do not constitute advertising or an offering of securities in Russia. The issuance of Shares under the Plan has not and will not be registered in Russia; therefore, Shares may not be offered or placed in public circulation in Russia.

In no event will Shares acquired under the Plan be delivered to you in Russia; any and all Shares will be maintained on your behalf in the United States.

You are not permitted to sell any Shares acquired under the Plan directly to a Russian legal entity or resident.

Data Privacy Notice. The following provision supplements Section IX of the Agreement:

You understand and agree that you must complete and return a Consent to Processing of Personal Data (the "Consent") form to the Company. Further, you understand and agree that if you do not complete and return a Consent form to the Company, the Company will not be able to administer or maintain the Option. Therefore, you understand that refusing to complete a Consent form or withdrawing your consent may affect your ability to participate in the Plan.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Russian residents are required to notify Russian tax authorities within one (1) month of opening, closing or changing the details of a foreign account. Russian residents also are required to report (i) the beginning and ending balances in such a foreign bank account each year and (ii) transactions related to such a foreign account during the year to the Russian tax authorities, on or before June 1 of the following year. The tax authorities can require you to provide appropriate supporting documents related to transactions in a foreign bank account. You are encouraged to contact your personal advisor before remitting your proceeds from participation in the Plan to Russia as exchange control requirements may change.

Anti-Corruption Legislation Information. Individuals holding public office in Russia, as well as their spouses and dependent children, may be prohibited from opening or maintaining a foreign brokerage or bank account and holding any securities, whether acquired directly or indirectly, in a foreign company (including Shares acquired under the Plan). You should consult with your personal legal advisor to determine whether this restriction applies to your circumstances.

SINGAPORE

TERMS AND CONDITIONS

Restriction on Sale and Transferability. You hereby agree that any Shares acquired pursuant to the Option will not be offered for sale in Singapore prior to the six (6)-month anniversary of the Grant Date, unless such sale or offer is made pursuant to one or more exemptions under Part XIII Division 1 Subdivision (4) (other than section 280) of the Securities and Futures Act (Chap. 289, 2006 Ed.) ("SFA"), or pursuant to, and in accordance with the conditions of, any other applicable provisions of the SFA.

NOTIFICATIONS

Securities Law Information. The grant of the Option is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA, on which basis it is exempt from the prospectus and registration requirements under the SFA, and is not made with a view to the Option being subsequently offered for sale to any other party. The Plan has not been, and will not be, lodged or registered as a prospectus with the Monetary Authority of Singapore.

Chief Executive Officer and Director Notification Requirement. The Chief Executive Officer ("CEO") and the directors, associate directors (including alternate, substitute, associate and shadow directors) of a Singapore Affiliate are subject to certain notification requirements under the Singapore Companies Act. The CEO and directors must notify the Singapore Affiliate in writing of an interest (*e.g.*, Options, Shares, etc.) in the Company or any related company within two (2) business days of (i) its acquisition or disposal, (ii) any change in a previously disclosed interest (*e.g.,* when the Shares are sold), or (iii) becoming the CEO or a director.

SLOVAK REPUBLIC

There are no country-specific provisions.

SLOVENIA

There are no country-specific provisions.

SPAIN

TERMS AND CONDITIONS

Nature of Grant. The following provision supplements Section XII of the Agreement:

In accepting this Option, you consent to participation in the Plan and acknowledge that you have received a copy of the Plan.

You understand that the Company has unilaterally, gratuitously and in its sole discretion decided to grant the Option under the Plan to individuals who may be members of the Board or Employees of the Company or its Affiliates throughout the world. The decision is a limited decision, which is entered into upon the express assumption and condition that the Option granted will not economically or otherwise bind the Company or any of its Affiliates on an ongoing basis, other than as expressly set forth in the Agreement, including this Appendix. Consequently, you understand that the Option granted hereunder is given on the assumption and condition that it shall not become a part of any employment contract (either with the Company or any of its Affiliates) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Further, you understand and freely accept that there is no guarantee that any benefit whatsoever shall arise from any gratuitous and discretionary grant of the Option since the future value of the Option and the underlying Shares is unknown and unpredictable. In addition, you understand that the Option granted hereunder would not be made but for the assumptions and conditions referred to above; thus, you understand, acknowledge and freely accept that, should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then any grant of an Option or right to an Option shall be null and void.

Further, the vesting of the Option is expressly conditioned on your continued and active rendering of service, such that if your employment terminates for any reason whatsoever, the Option may cease vesting immediately, in whole or in part, effective on the date of your termination of employment (unless otherwise specifically provided in Section IV of the Agreement). This will be the case, for example, even if (1) you are considered to be unfairly dismissed without good cause (*i.e.*, subject to a "despido improcedente"); (2) you are dismissed for disciplinary or objective reasons or due to a collective dismissal; (3) you terminate service due to a change of work location, duties or any other employment or contractual condition; (4) you terminate service due to a unilateral breach of contract by the Company or an Affiliate; or (5) your employment terminates for any other reason whatsoever. Consequently, upon termination of your employment for any of the above

reasons, you may automatically lose any rights to Options that were not vested on the date of your termination of employment, as described in the Plan and the Agreement.

You acknowledge that you have read and specifically accept the conditions referred to in Section IV of the Agreement.

NOTIFICATIONS

Securities Law Information. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Agreement (including this Appendix) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

Exchange Control Information. If you acquire Shares under the Plan, you must declare the acquisition to the *Direccion General de Comercio e Inversiones* (the "DGCI"). If you acquire the Shares through the use of a Spanish financial institution, that institution will automatically make the declaration to the DGCI for you; otherwise, you will be required to make the declaration by filing a D-6 form. You must declare ownership of any Shares with the DGCI each January while the Shares are owned and must also report, in January, any sale of Shares that occurred in the previous year for which the report is being made, unless the sale proceeds exceed the applicable threshold, in which case the report is due within one (1) month of the sale.

Foreign Asset/Account Reporting Information. You are required to declare electronically to the Bank of Spain any securities accounts (including brokerage accounts held abroad), as well as the Shares held in such accounts if the value of the transactions during the prior tax year or the balances in such accounts as of December 31 of the prior tax year exceed €1,000,000.

To the extent that you hold Shares and/or have bank accounts outside of Spain with a value in excess of €50,000 (for each type of asset) as of December 31 each year, you will be required to report information on such assets in your tax return (tax form 720) for such year. After such Shares and/or accounts are initially reported, the reporting obligation will apply for subsequent years only if the value of any previously-reported Shares or accounts increases by more than €20,000 or if you sell or otherwise dispose of any previously-reported Shares or accounts. If the value of such Shares and/or accounts as of December 31 does not exceed €50,000, a summarized form of declaration may be presented.

SWEDEN

There are no country-specific provisions.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. The Option is not intended to be publicly offered in or from Switzerland. Because this is a private offering in Switzerland, the Option is not subject to registration in Switzerland. Neither this document nor any other materials relating to the Option (i) constitutes a prospectus as such term is understood pursuant to article 652a of the Swiss Code of Obligations, (ii) may be publicly distributed nor otherwise made publicly available in Switzerland or (iii) have been or will be filed with, approved or supervised by any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority ("FINMA").

TAIWAN

NOTIFICATIONS

Exchange Control Information. You may acquire and remit foreign currency (including proceeds from the sale of Shares or the receipt of dividends) up to US$5,000,000 per year without justification. If the transaction amount is TWD500,000 or more in a single transaction, you must submit a Foreign Exchange Transaction Form. If the transaction amount is US$500,000 or more in a single transaction, you must also provide supporting documentation to the satisfaction of the remitting bank.

THAILAND

NOTIFICATIONS

Exchange Control Information. If you remit funds out of Thailand to exercise your Option, it is your responsibility to comply with applicable exchange control laws. Under current exchange control regulations, if you are a Thai resident, you may remit funds out of Thailand up to US$1,000,000 per year to purchase Shares (and otherwise invest in securities abroad) by submitting an application to an authorized agent, (*i.e.*, a commercial bank authorized by the Bank of Thailand to engage in the purchase, exchange and withdrawal of foreign currency). The application includes the Foreign Exchange Transaction Form, a letter describing the Option, a copy of the Plan and related documents, and evidence showing the nexus between the Company and your Employer. If you use a method of exercise that does not involve remitting funds out of Thailand, this requirement does not apply.

Further, if proceeds from the sale of Shares or the receipt of any dividends exceed US$50,000 in a single transaction, you must (i) immediately repatriate such funds to Thailand and (ii) report the inward remittance to the Bank of Thailand on a Foreign Exchange Transaction Form. In addition, within three hundred and sixty (360) days of repatriation, you must either convert any funds repatriated to Thailand to Thai Baht or deposit the funds in a foreign exchange account with a Thai commercial bank. Any such commercial bank must be duly authorized by the Bank of Thailand to engage in the purchase, exchange and withdrawal of foreign currency.

TURKEY

NOTIFICATIONS

Securities Law Information. The Option is made available only to Employees of the Company and its Affiliates, and the offer of participation in the Plan is a private offering. The grant of the Option and the issuance of Shares at exercise takes place outside of Turkey.

Exchange Control Information. Any activity related to investments in foreign securities (*e.g.*, the sale of Shares under the Plan or the receipt of cash dividends) must be conducted through a bank or financial intermediary institution licensed by the Turkish Capital Markets Board and should be reported to the Turkish Capital Markets Board by the bank or intermediary assisting with the transaction. You should contact a personal legal advisor for further information regarding these requirements.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Information. Options under the Plan are granted only to select Board members and Employees of the Company and its Affiliates and are for the purpose of providing equity incentives. The Plan and the Agreement are intended for distribution only to such Board members and Employees and must not be delivered to, or relied on by, any other person. You should conduct your own due diligence on the Options offered pursuant to this Agreement. If you do not understand the contents of the Plan and/or the Agreement, you should consult an authorized financial adviser. The Emirates Securities and Commodities Authority and the Dubai Financial Services Authority have no responsibility for reviewing or verifying any documents in connection with the Plan. Further, the Ministry of the Economy and the Dubai Department of Economic Development have not approved the Plan or the Agreement nor taken steps to verify the information set out therein, and have no responsibility for such documents.

UNITED KINGDOM

TERMS AND CONDITIONS

Tax Withholding. This provision supplements Section V of the Agreement:

Without limitation to Section V of the Agreement, you agree that you are liable for all Tax Obligations and hereby covenant to pay all such Tax Obligations as and when requested by the Company or your Employer or by Her Majesty's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and your Employer against any taxes that they are required to pay or withhold or have paid or will pay to HMRC (or any other tax authority or any other relevant authority) on your behalf.

Notwithstanding the foregoing, if you are an executive officer or director within the meaning of Section 13(k) of the Exchange Act, as amended from time to time, you understand that you may not be able to indemnify the Company or your Employer for the amount of income tax not collected from or paid by you, as it may be considered a loan. In the event that you are an executive officer or director and income tax is not collected from you within ninety (90) days after the end of the tax year in which the Taxable Event occurs, the amount of any uncollected income tax may constitute an additional benefit to you on which additional income tax and national insurance contributions ("NICs") may be payable. You acknowledge that you are responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing your Employer for the value of any NICs due on this additional benefit, which the Company or your Employer may recover from you by any of the means set forth in Section V of the Agreement.

If the maximum applicable withholding rate is used, any over-withheld amount may be credited to you by the Company or your Employer (with no entitlement to the Common Stock equivalent) or if not so credited, you may seek a refund from the local tax authorities.

Joint Election. If you are a resident of the United Kingdom between the Grant Date and the vesting of the Option, as a condition of the Option granted hereunder, you agree to accept any liability for secondary Class 1 National Insurance Contributions (the "Employer NICs"), which may be payable by the Company or your Employer with respect to the exercise of the Option and issuance of Shares subject to the Option, the assignment or release of the Option for consideration, or the receipt of any other benefit in connection with the Option.

Without limitation to the foregoing, you agree to make an election (the "Election"), in the form specified and/or approved for such election by HMRC, that the liability for your Employer NICs payments on any such gains shall be transferred to you to the fullest extent permitted by law. You further agree to execute such other elections as may be required between you and any successor to the Company and/or your Employer. You hereby authorize the Company and your Employer to withhold such Employer NICs by any of the means set forth in Section V of the Agreement.

Failure by you to enter into an Election, withdrawal of approval of the Election by HMRC or a joint revocation of the Election by you and the Company or your Employer, as applicable, shall be grounds for the forfeiture and cancellation of the Option, without any liability to the Company or your Employer.

UNITED STATES

TERMS AND CONDITIONS

Nature of Grant. The following provision replaces Section IV(B)(1) of the Agreement:

(1) "termination of your employment" shall mean the last date you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of termination of your employment (whether or not in breach of local labor laws), your right to exercise the Option and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively employed; provided, however, that such right will be extended by any notice period mandated by law (e.g. the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave (as applicable), unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave. Your right, if any, to exercise the Option after termination of employment will be measured by the date of termination of your active employment; provided, however, that such right will be extended by any notice period mandated by law (e.g. the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave, unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave. Notwithstanding anything to the contrary herein, in no event shall the term of this Option extend beyond the Expiration Date set forth on the Award Notice and in this Agreement.

Form of Award Notice

[*The information set forth in this Award Notice will be contained on the related pages on Merrill Lynch Benefits Website (or the website of any successor company to Merrill Lynch Bank & Trust Co., FSB). This Award Notice shall be replaced by the equivalent pages on such website. References to Award Notice in this Agreement shall then refer to the equivalent pages on such website.*]

This notice of Award (the "Award Notice") sets forth certain details relating to the grant by the Company to you of the Award identified below, pursuant to the Plan. The terms of this Award Notice are incorporated into the Agreement that accompanies this Award Notice and made part of the Agreement. Capitalized terms used in this Award Notice that are not otherwise defined in this Award Notice have the meanings given to such terms in the Agreement.

Employee:	
Employee ID:	
Address:	
Award Type:	
Grant ID:	
Plan:	Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time
Grant Date:	
Grant Price:	$_____
Number of Shares Covered by Option:	
Expiration Date:	The [_____ (__th)] anniversary of the Grant Date
Vesting Date:	Means the vesting date indicated in the Vesting Schedule
Vesting Schedule:	Means the schedule of vesting set forth under Vesting Details
Vesting Details:	Means the presentation (tabular or otherwise) of the Vesting Date and the quantity of Shares vesting.

IMPORTANT NOTICE REGARDING ACCEPTANCE OF THE AWARD AND THE REQUIREMENT TO OPEN A BROKERAGE ACCOUNT:

***RESIDENTS OF THE U.S. AND PUERTO RICO*:** Please read this Award Notice, the Plan and the Agreement (collectively, the "Grant Documents") carefully. If you, as a resident of the U.S. or Puerto Rico, do **not** wish to receive this Award and/or you do **not** consent and agree to the terms and conditions on which this Award is offered, as set forth in the Grant Documents, then you must reject the Award by contacting the Merrill Lynch call center (800) 97AMGEN (800-972-6436) within the U.S., Puerto Rico and Canada or +1 (609) 818-8910 from all other countries (Merrill Lynch will accept the charges for your call) no later than the forty-fifth calendar day following the day on which this Award Notice is made available to you, in which case the Award will be canceled. For the purpose of determining the forty-five calendar days, Day 1 will be the day **immediately** following the day on which this Award Notice is made available to you. Your failure to notify the Company of your rejection of the Award within this specified period will constitute your acceptance

of the Award and your agreement with all terms and conditions of the Award, as set forth in the Grant Documents. If you agree to the terms and conditions of your grant and you desire to accept it, then no further action is needed on your part to accept the grant. However, you must still open a brokerage account as directed by the Company, by 1:00 pm Pacific Time on or before the date that is 11 months after the date of grant. This step is necessary to process transactions related to your equity grant. **If you do not open a brokerage account by this deadline, your grant will be canceled.**

RESTRICTED STOCK UNIT AGREEMENT

THE SPECIFIC TERMS OF YOUR GRANT OF RESTRICTED STOCK UNITS ARE FOUND IN THE PAGES RELATING TO THE GRANT OF RESTRICTED STOCK UNITS FOUND ON MERRILL LYNCH BENEFITS WEBSITE (OR THE WEBSITE OF ANY SUCCESSOR COMPANY TO MERRILL LYNCH BANK & TRUST CO., FSB) (THE "AWARD NOTICE") WHICH ACCOMPANIES THIS DOCUMENT. THE TERMS OF THE AWARD NOTICE ARE INCORPORATED INTO THIS RESTRICTED STOCK UNIT AGREEMENT.

On the Grant Date specified in the Award Notice, Amgen Inc., a Delaware corporation (the "Company"), has granted to you, the grantee named in the Award Notice, under the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "Plan"), the Number of Units with respect to the number of shares of the $0.0001 par value common stock of the Company (the "Shares") specified in the Award Notice, on the terms and conditions set forth in this Restricted Stock Unit Agreement, any special terms and conditions for your country set forth in the attached Appendix A and the Award Notice (together, the "Agreement"). The Units shall constitute Restricted Stock Units under Section 9.5 of the Plan, which is incorporated herein by reference. Capitalized terms not defined herein shall have the meanings assigned to such terms in the Plan.

I. Vesting Schedule and Termination of Units.

a. *General.* Subject to the terms and conditions of this Agreement, on each Vesting Date, the Number of Units indicated on the Vesting Schedule shall vest, provided that you have remained continuously and actively employed with the Company or an Affiliate (as defined in the Plan) through each applicable Vesting Date, unless (i) [your employment has terminated due to your Voluntary Termination (as defined in paragraph (d) of this Section I below)]*, [(ii)] you experience a Qualified Termination (as defined below), or (iii)[(ii)] as otherwise determined by the Company in the exercise of its discretion as provided in paragraph (f) of this Section I. The Units represent an unfunded, unsecured promise by the Company to deliver Shares. Only whole Shares shall be issued upon vesting of the Units, and the Company shall be under no obligation to issue any fractional Shares to you. If your employment with the Company or an Affiliate is terminated for any reason or for no reason, including if your active employment is terminated by the Company or an Affiliate without Cause (as defined below), or in the event of any other termination of your active employment caused directly or indirectly by the Company or an Affiliate, except as otherwise provided in paragraphs (b), (c), [(d),]*(1) (e) or (f) of this Section I below, your unvested Units shall automatically expire and terminate on the date of termination of your active employment. Notwithstanding anything herein to the contrary, the Vesting Schedule may be accelerated (by notice in writing) by the Company in its sole discretion at any time that the Units remain outstanding and unvested (in whole or in part). In addition, if not prohibited by local law, vesting may be suspended by the Company in its sole discretion during a leave of absence as provided from time to time according to Company policies and practices.

[1] *Paragraph (d) of Section I of this Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

b. *Permanent and Total Disability.* Notwithstanding the provisions in paragraph (a) above, if your employment with the Company or an Affiliate terminates due to your Permanent and Total Disability (as defined below), then the vesting of Units granted under this Agreement shall be accelerated, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), to vest as of the day immediately preceding such termination of your employment with respect to all Units granted hereunder, except that if the Units were granted in the calendar year in which such termination occurs, the Units shall be accelerated to vest with respect to a number of Units equal to the number of Units subject to this Agreement multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any Units that remain unvested shall automatically expire and terminate on the date of the termination of your active employment due to your Permanent and Total Disability without consideration therefor.

c. *Death*. Notwithstanding the provisions in paragraph (a) above, if your employment with the Company or an Affiliate terminates due to your death, then the vesting of Units granted under this Agreement shall be accelerated to vest as of the day immediately preceding your death with respect to all Units granted hereunder, except that if the Units were granted in the calendar year in which your death occurs the Units shall be accelerated to vest with respect to a number of Units equal to the number of Units subject to this Agreement multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any Units that remain unvested shall automatically expire and terminate on the date of the termination of your active employment due to your death without consideration therefor.

d. *[Retirement.* Notwithstanding the provisions in paragraph (a) above, if you terminate your employment with the Company or an Affiliate due to your voluntary termination (and such voluntary termination is not the result of Permanent and Total Disability (as defined below)) after you are at least sixty-five (65) years of age, or after you are at least fifty-five (55) years of age and have been an employee of the Company and/or an Affiliate for at least ten (10) years in the aggregate as determined by the Company in its sole discretion according to Company policies and practices as in effect from time to time ("Voluntary Termination"), then the Units will vest pursuant to the Vesting Schedule without regard to the termination of employment prior to the Vesting Date, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment

and the termination of your employment with the Company), with respect to all Units granted hereunder; provided, however, that if the Units were granted in the calendar year in which the Voluntary Termination occurs, the Units will vest pursuant to the Vesting Schedule provided in the Award Notice, provided, that each tranche of Units scheduled to vest upon each remaining Vesting Date in the Vesting Schedule will vest only with respect to the number of Units in such tranche multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any Units that remain unvested in excess of such number of Units shall automatically expire and terminate on the date of termination of your active employment due to your Voluntary Termination without consideration therefor; provided, further, however, that in the event of your death following your Voluntary Termination, any Units that remain outstanding as of the date of your death will become vested (and the Vesting Date with respect to such Units will occur) as of the day immediately preceding your death. Notwithstanding the definition of Voluntary Termination set forth above, if the Company receives an opinion of counsel that there has been a legal judgment and/or legal development in your jurisdiction that would likely result in the favorable treatment upon Voluntary Termination described above being deemed unlawful and/or discriminatory, then the Committee will not apply the favorable treatment described above.] [Reserved]*

e. *Qualified Termination after a Change of Control*. Notwithstanding the provisions in paragraph (a) above, in the event of a Qualified Termination (as defined below), then, to the extent permitted by applicable law, the vesting of Units granted under this Agreement shall be accelerated to vest as of the day immediately prior to the Qualified Termination.

f. *Continued Vesting*. Notwithstanding the provisions in paragraph (a) above, the Company may in its sole discretion at any time during the term of this Agreement, in writing, otherwise provide that the Units will vest pursuant to the Vesting Schedule without regard to the termination of employment prior to the Vesting Date, subject to any terms and conditions that the Company may determine.

For purposes of this Agreement:

(i) "termination of your active employment" shall mean the last date that you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of termination of your employment (whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are working or the terms of your employment agreement, if any), your right to receive Units and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively providing services and will not be extended by any notice period (*e.g.*, active employment would not include any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any). The Company shall have exclusive discretion to determine when you are no longer actively providing services for purposes

of this Agreement (including whether you may still be considered to be providing services while on a leave of absence);

[2] Paragraph(d) of Section I of this Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.

(ii) "Cause" shall mean (i) your conviction of a felony (or similar crime under applicable law, as determined by the Company), or (ii) your engaging in conduct that constitutes willful gross neglect or willful gross misconduct in carrying out your duties, resulting, in either case, in material economic harm to the Company or any Affiliate, unless you believed in good faith that such conduct was in, or not contrary to, the best interests of the Company or any Affiliate. For purposes of clause (ii) above, no act, or failure to act, on your part shall be deemed "willful" unless done, or omitted to be done, by you not in good faith;

(iii) "Permanent and Total Disability" shall have the meaning ascribed to such term under Section 22(e)(3) of the Code and with such permanent and total disability being certified prior to termination of your employment by (i) the U.S. Social Security Administration, (ii) the comparable governmental authority applicable to an Affiliate, (iii) such other body having the relevant decision-making power applicable to an Affiliate, or (iv) an independent medical advisor appointed by the Company in its sole discretion, as applicable, in any such case;

(iv) "Qualified Termination" shall mean

(a) if you are an employee who participates in the Change of Control Plan (as defined below), your termination of employment within two (2) years following a Change of Control (i) by the Company other than for Cause, Disability (as defined below), or as a result of your death or (ii) by you for Good Reason (as defined in the Change of Control Plan); or

(b) if you are an employee who does not participate in the Change of Control Plan or the Change of Control Plan is no longer in effect, your termination of employment within two (2) years following a Change of Control by the Company other than for Cause, Disability (as defined below), or as a result of your death;

(v) "Change of Control" shall mean the occurrence of any of the following:

(A) the acquisition (other than from the Company) by any person, entity or "group," within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (excluding, for this purpose, the Company or any of its Affiliates, or any employee benefit plan of the Company or any of its Affiliates which acquires beneficial ownership of voting securities of the Company), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of fifty percent

(50%) or more of either the then-outstanding Shares or the combined voting power of the Company's then-outstanding voting securities entitled to vote generally in the election of directors; or

(B) the consummation by the Company of a reorganization, merger, consolidation, (in each case, with respect to which persons who were the stockholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than fifty percent (50%) of the combined voting power entitled to vote generally in the election of directors of the reorganized, merged or consolidated company's then-outstanding voting securities) or a liquidation or dissolution of the Company or of the sale of all or substantially all of the assets of the Company.

Notwithstanding anything herein or in the Agreement to the contrary, if a Change of Control constitutes a payment event with respect to any Unit that is subject to United States income tax and which provides for a deferral of compensation that is subject to Section 409A of the Code, the transaction or event described in subsection (A) or (B) above must also constitute a "change in control event," as defined in U.S. Treasury Regulation § 1.409A-3(i)(5), in order to constitute a Change of Control for purposes of payment of such Unit.

(vi) "Change of Control Plan" shall mean the Company's change of control and severance plan, including the Amgen Inc. Change of Control Severance Plan, as amended and restated, effective as of December 9, 2010 (and any subsequent amendments thereto), or equivalent plan governing the provision of benefits to eligible employees upon the occurrence of a Change of Control (including resulting from a termination of employment that occurs within a specified time period following a Change of Control), as in effect immediately prior to a Change of Control; and

(vii) "Disability" shall be determined in accordance with the Company's long-term disability plan as in effect immediately prior to a Change of Control.

II. Form and Timing of Settlement. Subject to satisfaction of tax or similar obligations as provided for in Section III, any vested Units shall be settled by the Company delivering to you a number of Shares equal to the number of such vested Units or in a lump sum in cash with a value equal to the Fair Market Value of the number of Shares subject to the vested Units as of the applicable Vesting Date (without interest thereon), or in a combination of Shares and cash, as determined by the Administrator at any time prior to settlement and in its discretion, as soon as practicable, and in any event within 90 days, after the applicable Vesting Date, which for purposes of this Section II, includes the date of any accelerated vesting, if any (the "Settlement Period"). [(For the avoidance of doubt, in the event that any Units continue to vest following a Voluntary Termination in accordance with Section 1(d) above, the Vesting Date(s) for purposes of settlement pursuant to this Section II shall be the regularly scheduled Vesting Dates following such termination.)]* Notwithstanding anything to the contrary in the foregoing, in the event that (i) the vesting and settlement of Units is conditioned on your execution and delivery of a release and (ii) the Settlement Period commences in one calendar year and ends in the next calendar year, the Units will be settled in the second calendar year. Shares issued in respect of a Unit shall be deemed to be issued in consideration of past services actually rendered by you to the Company or an Affiliate or for its benefit for which

you have not previously been compensated or for future services to be rendered, as the case may be, which the Company deems to have a value at least equal to the aggregate par value thereof.

[3] Paragraph (d) of Section I of this Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.

III. Tax Withholding; Issuance of Certificates. Regardless of any action the Company or your actual employer (the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items related to your participation in the Plan and legally applicable to you ("Tax Obligations"), you acknowledge that the ultimate liability for all Tax Obligations is and remains your responsibility and may exceed the amount, if any, actually withheld by the Company and/or your Employer. You further acknowledge that the Company and/or your Employer (i) make no representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Units, including the grant of the Units, the vesting of Units, the conversion of the Units into Shares or the receipt of an equivalent cash payment, the subsequent sale of any Shares acquired at vesting and the receipt of any Dividends (as defined in Section IV, below) or Dividend Equivalents, and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Units to reduce or eliminate your liability for Tax Obligations or achieve any particular tax result. Furthermore, if you become subject to tax in more than one jurisdiction, you acknowledge that the Company and/or your Employer (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, you shall pay, or make adequate arrangements satisfactory to the Company or to your Employer (in their sole discretion) to satisfy all Tax Obligations. In this regard, you authorize the Company and/or your Employer or their respective agents, at their discretion, to satisfy all applicable Tax Obligations by one or a combination of the following:

(a) withholding from your wages or other cash compensation paid to you by the Company and/or your Employer; or

(b) withholding from proceeds of the sale of Shares acquired upon vesting or payment of the Units either through a voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or

(c) withholding in Shares to be issued or cash to be paid upon vesting or payment of the Units, provided that, if Shares are withheld, the Company and your Employer shall only withhold an amount of Shares with a fair market value equal to the Tax Obligations.

Depending on the withholding method, the Company may withhold or account for Tax Obligations by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates. If the Tax Obligations are satisfied by

withholding in Shares, for tax purposes, you are deemed to have been issued the full number of Shares subject to the vested Units, notwithstanding that a number of the Shares is held back solely for the purpose of paying the Tax Obligations due as a result of any aspect of your participation in the Plan (any Shares withheld by the Company hereunder shall not be deemed to have been issued by the Company for any purpose under the Plan and shall remain available for issuance thereunder).

Finally, you shall pay to the Company or your Employer any amount of Tax Obligations that the Company or your Employer may be required to withhold or account for as a result of your participation in the Plan that cannot be satisfied by the means previously described. You agree to take any further actions and execute any additional documents as may be necessary to effectuate the provisions of this Section III. Notwithstanding Section II above, the Company may refuse to issue or deliver the Shares or the proceeds of the sale of Shares if you fail to comply with your obligations in connection with the Tax Obligations.

IV. Dividend Equivalents

(a) Crediting and Payment of Dividend Equivalents. Subject to this Section IV, Dividend Equivalents shall be credited on each Unit granted to you under this Agreement in the manner set forth in the remainder of this Section IV. If the Company declares one or more dividends or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the Grant Date through and including the day immediately preceding the day the shares of Common Stock subject to the Units are issued to you, whether in the form of cash, Common Stock or other property, then on the date such Dividend is paid to the Company's stockholders you shall be credited with an amount equal to the amount or fair market value of such Dividend which would have been payable to you if you held a number of shares of Common Stock equal to the number of your Units as of the record date for such Dividend, unless the Units have been forfeited between the record date and payment date for such Dividend. Any such Dividend Equivalents shall be credited and deemed reinvested in the Common Stock as of the Dividend payment date. Dividend Equivalents shall be payable in full shares of Common Stock, unless the Administrator determines, at any time prior to payment and in its discretion, that they shall be payable in cash. Dividend Equivalents payable with respect to fractional shares of Common Stock shall be paid in cash.

(b) Treatment of Dividend Equivalents. Except as otherwise expressly provided in this Section IV, any Dividend Equivalents credited to you shall be subject to all of the provisions of this Agreement which apply to the Units with respect to which they have been credited and shall be payable, if at all, at the time and to the extent that the underlying Unit becomes payable. Dividend Equivalents shall not be payable on any Units that do not vest, or are forfeited, pursuant to the terms of this Agreement. Dividend Equivalent rights and any amounts that may become distributable in respect thereof shall be treated separately from the Units and the rights arising in connection therewith for purposes of the designation of time and form of payments required by Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date, "Section 409A").

V. Transferability. No benefit payable under, or interest in, this Agreement or in the Shares that are scheduled to be issued to you hereunder shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, your or your beneficiary's debts, contracts, liabilities or torts; provided, however, nothing in this Section V shall prevent transfer (i) by will or (ii) by applicable laws of descent and distribution.

VI. Notices. Any notices provided for in this Agreement or the Plan shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company Stock Administrator. Such notices may be given using any automated system for the documentation, granting or settlement of Awards, such as a system using an internet website or interactive voice response, as approved by the Company.

VII. Plan. This Agreement is subject to all the provisions of the Plan, which provisions are hereby made a part of this Agreement, including without limitation the provisions of Section 9.5 of the Plan relating to Restricted Stock Units, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan shall control.

VIII. Governing Law and Venue. The terms of this Agreement shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Agreement is made and/or to be performed.

IX. Code Section 409A. The time and form of payment of the Units is intended to comply with the requirements of Section 409A and this Agreement shall be interpreted in accordance with Section 409A. Accordingly, no acceleration or deferral of any payment shall be permitted if it would cause the payment of the Units to violate Section 409A. In addition, notwithstanding any provision herein to the contrary, in the event that following the Grant Date, the Committee (as defined in the Plan) determines that it may be necessary or appropriate to do so, the Committee may adopt such amendments to the Plan and/or this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Plan and/or the Units from the application of Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Award, or (b) comply with the requirements of Section 409A; provided, however, that this paragraph shall not create an obligation on the part of the Committee to adopt any such amendment, policy or procedure or take any such other action. For purposes of Section 409A, the right to receive payment of Units at each Vesting Date shall be treated as a right to receive separate and distinct payments. No payment hereunder shall be made to you during the six (6)-

month period following your "separation from service" (within the meaning of Section 409A) to the extent that the Company determines that paying such amount at the time set forth herein would be a prohibited distribution under Section 409A(a)(2)(B)(i). If the payment of any such amounts is delayed as a result of the previous sentence, then within thirty (30) days following the end of such six (6)-month period (or, if earlier, your death), the Company shall pay to you (or to your estate) the cumulative amounts that would have otherwise been payable to you during such period, without interest.

X. Acknowledgement. By electing to accept this Agreement, you acknowledge receipt of this Agreement and hereby confirm your understanding that the terms set forth in this Agreement constitute, subject to the terms of the Plan, which terms shall control in the event of any conflict between the Plan and this Agreement, the entire agreement and understanding of the parties with respect to the matters contained herein and supersede any and all prior agreements, arrangements and understandings, both oral and written, between the parties concerning the subject matter of this Agreement. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

XI. Acknowledgement of Nature of Plan and Units. In accepting this Agreement, you acknowledge, understand and agree that:

(a) the Plan is established voluntarily by the Company, is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan;

(b) the grant of the Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future awards of Units, or benefits in lieu of Units even if Units have been awarded in the past;

(c) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(d) your participation in the Plan is voluntary;

(e) the grant of Units, the Shares subject to the Units, and the income from and value of same, are not intended to replace any pension rights or compensation;

(f) neither the grant of Units nor any provision of this Agreement, the Plan or the policies adopted pursuant to the Plan confer upon you any right with respect to employment or continuation of current employment and shall not interfere with the ability of your Employer to terminate your employment or service relationship (if any) at any time;

(g) in the event that you are not an employee of the Company or any Affiliate, the Units shall not be interpreted to form an employment contract or relationship with the Company or any Affiliate;

(h) the future value of the underlying Shares is unknown, indeterminable and cannot be predicted with certainty;

(i) in consideration of the grant of Units hereunder, no claim or entitlement to compensation or damages arises from termination of Units, and no claim or entitlement to compensation or damages shall arise from forfeiture of the Units resulting from termination of your employment by the Company or an Affiliate (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), and you irrevocably release the Company and your Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, you shall be deemed irrevocably to have waived your entitlement to pursue such claim;

(j) unless otherwise agreed with the Company, the Units, the Shares subject to the Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service you may provide as a director of an Affiliate of the Company;

(k) except as otherwise provided in this Agreement or the Plan, the Units and the benefits evidenced by this Agreement do not create any entitlement to have the Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company;

(l) the following provisions apply only if you are providing services outside the United States:

(i) for employment law purposes outside the United States, the Units, Shares subject to the Units, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments; and

(ii) neither the Company, your Employer nor any Affiliate of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Units or of any amounts due to you pursuant to the settlement of the Units or the subsequent sale of any Shares acquired upon settlement.

XII. No Advice Regarding Award . The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan, or your acquisition or sale of the underlying Shares. You should consult with your own

personal tax, legal and financial advisors regarding your participation in the Plan before taking any action related to the Plan.

XIII. Compliance with Laws. Notwithstanding any provision of this Agreement to the contrary, if you are employed by the Company or an Affiliate in any of the countries identified in the attached Appendix A (which constitutes a part of this Agreement), are subject to the laws of any foreign jurisdiction, or relocate to one of the countries included in the attached Appendix A, the Units granted hereunder shall be subject to any special terms and conditions for your country set forth in Appendix A and to the following additional terms and conditions:

a. the terms and conditions of this Agreement, including Appendix A, are deemed modified to the extent necessary or advisable to comply with applicable foreign laws or facilitate the administration of the Plan;

b. if applicable, the effectiveness of your award of Units is conditioned upon its compliance with any applicable foreign laws, regulations, rules or local governmental regulatory exemption and subject to receipt of any required foreign regulatory approvals;

c. to the extent necessary to comply with applicable foreign laws, the payment of any earned Units shall be made in cash or Common Stock, at the Company's election; and

d. the Company may take any other action, before or after an award of Units is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals.

Notwithstanding anything to the contrary contained herein, the Company shall not take any actions hereunder that would violate the Securities Act, the Exchange Act, the Code, or any other securities or tax or other applicable law or regulation, or the rules of any Securities Exchange. Notwithstanding anything to the contrary contained herein, the Shares issuable upon vesting of the Unit shall not be issued unless such Shares are then registered under the Securities Act, or, if such Shares are not then so registered, the Company has determined that such vesting and issuance would be exempt from the registration requirements of the Securities Act, and that the issuance satisfied all other applicable legal requirements.

XIV. Data Privacy. In order for the Company to facilitate your participation in the Plan, the Company and your Employer must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.

You understand that the Company and your Employer may hold certain personal information about you, including your name, home address and telephone number, email address, date of birth, social insurance number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares

awarded, cancelled, vested, unvested or outstanding in your favor, for the purposes of implementing, administering and managing the Plan ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Units may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Transfers of personal data among Company and its group entities follow applicable laws and our Binding Corporate Rules (BCRs). For more information on Company's BCRs, please visit http://www.amgen.com/bcr/. You acknowledge that the collection, use and transfer of your personal data is necessary to facilitate to your participation in the Plan, as well as to grant you Units or other equity awards and administer or maintain such awards.

You may correct or update your personal data previously provided to Company, by completing the form located at https://preferences.amgen.com. Subject to applicable law, you may have additional rights, including the right to object and/or request destruction of your personal data. To exercise these rights, where applicable, please contact your local human resources representative.

XV. Severability. If one or more of the provisions of this Agreement shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Agreement to be construed so as to foster the intent of this Agreement and the Plan.

XVI. Language. By electing to accept this Agreement, you acknowledge that you are sufficiently proficient in English, or have consulted with an advisor who is sufficiently proficient in English, so as to allow you to understand the terms and conditions of this Agreement. Further, if you have received this Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

XVII. Imposition of Other Requirements. The Company reserves the right to impose other requirements on your participation in the Plan, on the Units and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XVIII. Compensation Subject to Recovery. The Units subject to this Award and all compensation payable with respect to them shall be subject to recovery by the Company pursuant to any and all of the Company's policies with respect to the recovery of compensation, as they shall be in effect and may be amended from time to time, to the maximum extent permitted by applicable law.

XIX. Waiver. You acknowledge that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by you or any other grantee.

XX. Headings. This Agreement's section headings are for convenience only and shall not constitute a part of this Agreement or affect this Agreement's meaning.

Very truly yours,
AMGEN INC.

By:_____

Name:
Title:

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMENDED AND RESTATED AMGEN INC. 2009 EQUITY INCENTIVE PLAN, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

GRANT OF RESTRICTED STOCK UNITS (BY COUNTRY)

Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Plan and/or the Agreement to which this Appendix is attached.

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Units granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern any Units granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of November 2019. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you vest in the Units and acquire Shares under the Plan, or when you subsequently sell Shares acquired under the Plan.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the Shares are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares (*e.g.*, Units) or rights linked to the value of Shares (*e.g.*, Dividend Equivalents) during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account, Tax Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Plan (including from any Dividends or Dividend Equivalents received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

ALL EUROPEAN ECONOMIC AREA ("EEA") / EUROPEAN UNION ("EU") JURISDICTIONS, UNITED KINGDOM AND SWITZERLAND

TERMS AND CONDITIONS

Data Privacy Notice. This provision replaces Section XIV of the Agreement:

Please refer to the Fair Processing Notice previously provided by your local human resources representative, which notice governs the collection, use and transfer of your personal data necessary for the Company to facilitate your participation in the Plan. If you have any questions or concerns regarding the Fair Processing Notice, including questions about your rights afforded thereunder, you should contact your local human resources representative or send an email to staffing-hrconnect@amgen.com.

For purposes of implementing, administering and managing the Plan, Company and your Employer may hold certain personal data about you, including your name, home address and telephone number, email address, date of birth, social insurance number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Units may be deposited.

ARGENTINA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XI of the Agreement:

In accepting this Agreement, you acknowledge, understand and agree that the grant of the Units is made by the Company (not your Employer) in its sole discretion and that the value of the Units or any Shares acquired under the Plan shall not constitute salary or wages for any purpose under Argentine labor law including, but not limited to, the calculation of (i) any labor benefits including, without limitation, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus,

disability, and leave of absence payments, etc., or (ii) any termination or severance indemnities or similar payments.

NOTIFICATIONS

Securities Law Information. Neither the Units nor the underlying Shares are publicly offered or listed on any stock exchange in Argentina.

Exchange Control Information. Exchange control regulations in Argentina are subject to frequent change. You should consult with your personal legal advisor regarding any exchange control obligations that you may have prior to receiving proceeds from Dividend Equivalents, the sale of Shares or dividends. You must comply with any and all Argentine currency exchange restrictions, approvals and reporting requirements in connection with your participation in the Plan.

AUSTRALIA

NOTIFICATIONS

Australia Offer Document. The offer of the Award is intended to comply with the provisions of the Corporations Act 2001, ASIC Regulatory Guide 49 and ASIC Class Order CO 14/1000. Additional details are set forth in the Offer Document for the Offer of Restricted Stock Units to Australian Resident Employees.

Tax Information. Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies to the Units granted under the Plan, such that the Units are intended to be subject to deferred taxation.

Exchange Control Information. If you are an Australian resident, exchange control reporting is required for cash transactions exceeding AUD10,000 and for international fund transfers. If an Australian bank is assisting with the transaction, the bank will file the report on your behalf. If there is no Australian bank involved in the transfer, you will be required to file the report.

AUSTRIA

NOTIFICATIONS

Exchange Control Information. If you are an Austrian resident and you hold Shares acquired under the Plan outside of Austria, you must submit a report to the Austrian National Bank. An exemption applies if the value of the Shares as of any given quarter does not meet or exceed €30,000,000 or if the value of the Shares in any given year as of December 31 does not meet or exceed €5,000,000. If the former threshold is exceeded, quarterly obligations are imposed, whereas if the latter threshold is exceeded, annual reports must be given. The quarterly reporting date is as of the last day of the respective quarter and the deadline for filing the quarterly report is the 15th day of the month following the end of the respective quarter. The annual reporting date is December 31 and the deadline for filing the annual report is January 31 of the following year.

A separate reporting requirement applies when you sell Shares acquired under the Plan, receive a cash Dividend paid on such Shares or Dividend Equivalents paid in cash. In that case, there may be exchange control obligations if the cash proceeds are held outside of Austria. If the transaction volume of all cash accounts abroad meets or exceeds €10,000,000, the movements and balances of all accounts must be reported monthly, as of the last day of the month, on or before the 15th day of the following month, on the prescribed form (*Meldungen SI-Forderungen und/oder SI-Verpflichtungen*).

BELGIUM

NOTIFICATIONS

Tax Reporting; Foreign Asset/Account Reporting Information. If you are a Belgian resident, you are required to report any taxable income attributable to the Units granted hereunder on your annual tax return. You are also required to report any securities (*e.g.*, Shares acquired under the Plan) held and bank accounts (including brokerage accounts) opened and maintained outside of Belgium on your annual tax return. In a separate report, you are required to provide the National Bank of Belgium with the account details of any such foreign accounts (including the account number, bank name and country in which such account was opened). This report, as well as information on how to complete it, can be found on the website of the National Bank of Belgium, www.nbb.be, under the *Kredietcentrales / Centrales des crédits* caption.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the Units, you acknowledge that you agree to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the Units, the sale of Shares acquired under the Plan, the payment of Dividends on such Shares and the receipt of any Dividend Equivalents paid in cash.

Acknowledgement of Nature of Plan and Units. This provision supplements Section XI of the Agreement:

In accepting this Agreement, you acknowledge (i) that you are making an investment decision, (ii) that the Shares will be issued to you only if the vesting conditions are met and any necessary services are rendered by you during the vesting period set forth in the Vesting Schedule, and (iii) that the value of the underlying Shares is not fixed and may increase or decrease in value over the vesting period without compensation to you.

NOTIFICATIONS

Exchange Control Information. If you are resident or domiciled in Brazil, you will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights exceeds US$100,000. If such amount exceeds

US$100,000,000, the referenced declaration must be submitted quarterly. Assets and rights that must be reported include the following: (i) bank deposits; (ii) loans; (iii) financing transactions; (iv) leases; (v) direct investments; (vi) portfolio investments, including Shares acquired under the Plan; (vii) financial derivatives investments; and (viii) other investments, such as real estate. Please note that foreign individuals holding Brazilian visas are considered Brazilian residents for purposes of this reporting requirement and must declare at least the assets held abroad that were acquired subsequent to the date of admittance as a resident of Brazil. Individuals holding assets and rights outside of Brazil valued at less than US$100,000 are not required to submit a declaration.

BULGARIA

Foreign Asset/Account Reporting Information. You will be required to annually file statistical forms with the Bulgarian National Bank regarding your receivables in bank accounts abroad as well as your securities abroad (*e.g.*, Shares acquired under the Plan) if the total sum of all such receivables and securities equals or exceeds BGN 50,000 as of the previous calendar year-end. The reports are due by March 31. You should contact your bank in Bulgaria for additional information regarding this requirement.

CANADA

TERMS AND CONDITIONS

Termination of Employment. Section I(i) of the Agreement is amended to read as follows:

(i) "termination of your active employment" shall mean the last date that you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of involuntary termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive any Units and vest under the Plan, if any, will terminate effective as of the date that is the earlier of: (1) the date you receive written notice of termination of employment from the Company or your Employer, or (2) the date you are no longer actively employed by the Company or your Employer regardless of any notice period or period of pay in lieu of such notice required under local law (including, but not limited to statutory law, regulatory law and/or common law). Your right, if any, to acquire Shares pursuant to the Units after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law;

Form of Settlement – Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or anything to the contrary in the Agreement, the Units do not provide any right for you, as a resident of Canada, to receive a cash payment and shall be paid in Shares only.

The following provisions will apply to you if you are a resident of Quebec:

Language Consent. The parties acknowledge that it is their express wish that the Agreement, as well as all documents, notices, and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English.

Consentement Relatif à la Langue Utilisée. *Les parties reconnaissent avoir exigé la rédaction en anglais de cette convention (« Agreement »), ainsi que de tous documents, avis et procédures judiciaires, exécutés, donnés ou intentés en vertu de, ou liés directement ou indirectement à, la présente convention.*

Data Privacy Notice. This provision supplements Section XIV of the Agreement:

You hereby authorize the Company and the Company's representative to discuss with and obtain all relevant information from all personnel (professional or not) involved in the administration of the Plan. You further authorize the Company, your Employer and Merrill Lynch Bank & Trust Co., FSB (or any other stock plan service provider) to disclose and discuss your participation in the Plan with their advisors. You also authorize the Company and your Employer to record such information and keep it in your file.

NOTIFICATIONS

Securities Law Information. You are permitted to sell Shares acquired through the Plan through the designated broker appointed under the Plan, if any, provided that the resale of such Shares takes place outside of Canada through the facilities of a stock exchange on which the Shares are listed (*e.g.*, the Nasdaq Global Select Market).

Foreign Asset/Account Reporting Information. Specified foreign property, including Shares, stock options and other rights to receive Shares (*e.g.*, Units) of a non-Canadian company held by a Canadian resident employee generally must be reported annually on a Form T1135 (Foreign Income Verification Statement) if the total cost of the employee's specified foreign property exceeds C$100,000 at any time during the year. Thus, such stock options and Units must be reported – generally at nil cost – if the C$100,000 cost threshold is exceeded because other specified foreign property is held by the employee. When Shares are acquired, their cost generally is the adjusted cost base ("ACB") of the Shares. The ACB ordinarily would equal the fair market value of the Shares at the time of acquisition, but if the employee owns other shares of the same company, this ACB may have to be averaged with the ACB of the other shares.

CHINA

TERMS AND CONDITIONS

The following terms apply only to individuals who are subject to exchange control restrictions in the People's Republic of China (the "PRC"), as determined by the Company in its sole discretion:

Vesting of the Units. [Notwithstanding anything to the contrary in Section I(d) of the Agreement, if your employment with the Company or an Affiliate terminates due to your Voluntary Termination,

as defined in Section I(d), then the vesting of Units granted under this Agreement shall be accelerated to vest as of the day immediately preceding such Voluntary Termination with respect to all Units granted hereunder.]*

Sale Requirement. Notwithstanding anything to the contrary in the Agreement, due to exchange control laws in the PRC, you agree that the Company reserves the right to require the immediate sale of any Shares issued upon settlement of the Units. You understand and agree that any such immediate sale of Shares will occur as soon as is practical following settlement of the Units. Alternatively, if the Shares are not immediately sold upon settlement of the Units, the Company will require the sale of any Shares you may then hold within six (6) months (or such other period as may be required under applicable legal or exchange control requirements) following the termination of your employment with the Company including its Affiliates.

You agree that the Company is authorized to instruct Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company to assist with the sale of the Shares on your behalf pursuant to this authorization, and you expressly authorize such broker to complete the sale of such Shares. You also agree to sign any agreements, forms and/or consents that may be reasonably requested by the Company (or the Company's designated broker) to effectuate the sale of the Shares (including, without limitation, as to the transfers of the proceeds and other exchange control matters noted below) and to otherwise cooperate with the Company with respect to such matters, provided that you shall not be permitted to exercise any influence over how, when or whether the sales occur. Upon the sale of the Shares, you will receive the cash proceeds from the sale, less any applicable Tax Obligations, brokerage fees or commissions, in accordance with applicable exchange control laws and regulations.

You acknowledge that Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company is under no obligation to arrange for the sale of the Shares at any particular price. Due to fluctuations in the Share price and/or applicable exchange rates between the settlement date and (if later) the date on which the Shares are sold, the amount of proceeds ultimately distributed to you may be more or less than the market value of the Shares on the settlement date (which is the amount relevant to determining your liability for Tax Obligations). You understand and agree that the Company is not responsible for the amount of any loss that you may incur and that the Company assumes no liability for any fluctuations in the Share price and/or any applicable exchange rate.

Designated Broker Account. If Shares issued upon the settlement of the Units are not immediately sold, you acknowledge that you are required to maintain the Shares in an account with Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company until the Shares are sold through such Company-designated broker.

Exchange Control Requirements. You understand and agree that, pursuant to local exchange control requirements, you will be required to repatriate the cash proceeds from the sale of the Shares issued to you upon settlement of the Units and from the receipt of any Dividends or Dividend Equivalents to China. You further understand that, under applicable laws, such repatriation of your cash proceeds will need to be effectuated through a special exchange control account established

by the Company or any Affiliate, including your Employer, and you hereby consent and agree that any proceeds may be transferred to such special account prior to being delivered to you. You also understand that the Company will deliver the proceeds to you as soon as possible, but that there may be delays in distributing the funds to you due to exchange control requirements in China. Proceeds may be paid to you in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to you in U.S. dollars, you will be required to set up a U.S. dollar bank account in China so that the proceeds may be deposited into this account. If the proceeds are paid to you in local currency, the Company is under no obligation to secure any particular currency conversion rate and the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in China.

[4] *Paragraph (d) of Section I of the Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

COLOMBIA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XI of the Agreement:

You acknowledge that pursuant to Article 15 of Law 50/1990 (Article 128 of the Colombian Labor Code), the Plan and related benefits do not constitute a component of "salary" for any purpose. Therefore, they are considered to be of an extraordinary nature and will not be included and/or considered for purposes of calculating any and all labor benefits, such as legal/fringe benefits, vacations, indemnities and/or any other labor-related amounts which may be payable.

NOTIFICATIONS

Securities Law Information. The Shares are not and will not be registered with the Colombian registry of publicly traded securities (*Registro Nacional de Valores y Emisores*) and therefore the Shares may not be offered to the public in Colombia. Nothing in this document should be construed as the making of a public offer of securities in Colombia.

Exchange Control Information. Investment in assets located abroad (such as Shares acquired under the Plan) does not require prior approval from the Central Bank (*Banco de la República*). Nonetheless, such investments are subject to registration before the Central Bank as foreign investments held abroad, regardless of value. In addition, you must file an annual informative return with the local tax authority detailing assets you hold abroad, which must include the Shares acquired at vesting (every year as long as you keep them).

Any payments for your investment originating in Colombia (and the liquidation of such investments) must be transferred through the Colombian foreign exchange market (*e.g.*, local banks), which includes the obligation to correctly complete and file the appropriate foreign exchange form (*declaración de cambio*).

CROATIA

NOTIFICATIONS

Exchange Control Information. Croatian residents may be required to report any foreign investments (including Shares acquired under the Plan) to the Croatian National Bank for statistical purposes. You should be aware that exchange control regulations in Croatia are subject to frequent change and you are solely responsible for ensuring your continued compliance with current Croatian exchange control laws.

CZECH REPUBLIC

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Proceeds from the sale of Shares, any Dividends paid on such Shares or Dividend Equivalents may be held in a cash account abroad and you are no longer required to report the opening and maintenance of a foreign account to the Czech National Bank (the "CNB"), unless the CNB notifies you specifically that such reporting is required. Upon request of the CNB, you may need to file a notification within fifteen (15) days of the end of the calendar quarter in which you acquire Shares.

Exchange Control Information. Czech residents may be required to report the following transactions even in the absence of a request from the CNB: foreign direct investments with a value of 2,500,000 Kč or more in the aggregate or other foreign financial assets with a value of 200,000,000 Kč or more.

DENMARK

TERMS AND CONDITIONS

Danish Stock Option Act. In accepting the Units, you acknowledge that you have received an Employer Statement translated into Danish, which is being provided to comply with the Danish Stock Option Act. To the extent more favorable to you and required to comply with the Stock Option Act, as amended with effect from January 1, 2019.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The requirement to report certain information to the Danish Tax Administration via Form V or K was eliminated effective January 1, 2019. However, you still must report the foreign bank/brokerage accounts and their deposits, and Shares

held in a foreign bank or brokerage account in your tax return under the section on foreign affairs and income.

EGYPT

NOTIFICATIONS

Exchange Control Information. If you transfer funds into Egypt in connection with the Units, you are required to transfer the funds through a registered bank in Egypt.

FINLAND

There are no country-specific provisions.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the grant, you confirm having read and understood the Plan and Agreement which were provided in the English language. You accept the terms of these documents accordingly.

Consentement Relatif à la Langue Utilisée. *En acceptant l'attribution, vous confirmez avoir lu et compris le Plan et le Contrat, qui ont été communiqués en langue anglaise. Vous acceptez les termes de ces documents en connaissance de cause.*

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on a specific form together with the income tax return. Failure to comply could trigger significant penalties.

GERMANY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If your acquisition of Shares under the Plan leads to a qualified participation at any point during the calendar year, you will need to report the acquisition when you file your tax return for the relevant year. A qualified participation is attained if (i) the value of the Shares acquired exceeds €150,000 or (ii) in the unlikely event you hold Shares exceeding 10% of the Company's total Common Stock.

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank (*Bundesbank*). In case of payments in connection with securities (including proceeds realized upon the sale of Shares or the receipt of Dividends or Dividend Equivalents), the report must be made by the 5th day of the month following the month in which the payment was received and must be filed electronically. The form of report (*Allgemeines Meldeportal Statistik*) can be accessed via the *Bundesbank's* website (www.bundesbank.de) and is available in both German and English. You are responsible for satisfying any applicable reporting obligation.

GREECE

There are no country-specific provisions.

HONG KONG

TERMS AND CONDITIONS

Form of Settlement – Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or anything to the contrary in the Agreement, the Units do not provide any right for you to receive a cash payment and shall be paid in Shares only.

Sale of Shares. Shares received at vesting are accepted as a personal investment. In the event that Shares are issued in respect of the Units within six (6) months of the Grant Date, you agree that you will not offer to the public or otherwise dispose of the Shares prior to the six (6)-month anniversary of the Grant Date.

NOTIFICATIONS

SECURITIES WARNING: *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You should exercise caution in relation to the offer. If you are in doubt about any of the contents of the Agreement, including this Appendix, or the Plan, you should obtain independent professional advice. The Units and any Shares issued in respect of the Units do not constitute a public offering of securities under Hong Kong law and are available only to members of the Board and Employees. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Units and any documentation related thereto are intended solely for the personal use of each member of the Board and/or Employee and may not be distributed to any other person.*

HUNGARY

There are no country-specific provisions.

ICELAND

NOTIFICATIONS

Exchange Control Information. Approval by the Central Bank of Iceland is no longer required to participate in the Plan, regardless of the value of the Shares acquired under the Plan. Despite the recent relaxation of the exchange control requirements, you should consult with your personal advisor to ensure compliance with applicable exchange control regulations in Iceland as such regulations are subject to frequent change. You are responsible for ensuring compliance with all exchange control laws in Iceland.

INDIA

NOTIFICATIONS

Exchange Control Information. You understand that you must repatriate any cash Dividends paid on Shares acquired under the Plan to India or any Dividend Equivalents paid in cash, as well as any proceeds from the sale of Shares acquired under the Plan within a prescribed period of time (currently, within one hundred and eighty (180) days of receipt of cash Dividends or Dividend Equivalents, and within ninety (90) days of receipt of sale proceeds), or such other period of time as may be required under applicable regulations. You will receive a foreign inward remittance certificate ("FIRC") from the bank where you deposit the foreign currency, and you must maintain the FIRC as proof of repatriation of funds in the event that the Reserve Bank of India or your Employer requests proof of repatriation. It is your responsibility to comply with these requirements.

Foreign Asset/Account Reporting Information. You are required to declare foreign bank accounts and any foreign financial assets (including Shares held outside of India) in your annual tax return. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor in this regard.

IRELAND

TERMS AND CONDITIONS

Acknowledgement of Nature of Plan and Units. This provision supplements Section XI of the Agreement:

In accepting this Agreement, you understand and agree that the benefits received under the Plan will not be taken into account for any redundancy or unfair dismissal claim.

ITALY

TERMS AND CONDITIONS

Acknowledgement of Nature of Agreement. In accepting this Agreement, you acknowledge that (1) you have received a copy of the Plan, the Agreement and this Appendix; (2) you have reviewed the applicable documents in their entirety and fully understand the contents thereof; and (3) you accept all provisions of the Plan, the Agreement and this Appendix.

For any Units granted, you further acknowledge that you have read and specifically and explicitly approve, without limitation, the following sections of the Agreement: Section I; Section II; Section III; Section VIII; Section X; Section XI; Section XVI; Section XVII; and the Data Privacy Notice for All European Economic Area ("EEA") / European Union ("EU") Jurisdictions, United Kingdom and Switzerland in this Appendix.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Italian residents who, at any time during the fiscal year, hold foreign financial assets (including cash and Shares) which may generate income taxable in Italy are required to report these assets on their annual tax returns (UNICO Form, RW Schedule) for the year during which the assets are held, or on a special form if no tax return is due. These reporting obligations will also apply to Italian residents who are the beneficial owners of foreign financial assets under Italian money laundering provisions.

Foreign Financial Assets Tax. The fair market value of any Shares held outside of Italy is subject to a foreign assets tax. The fair market value is considered to be the value of the Shares on the Nasdaq Global Select Market on December 31 of the applicable year in which you held the Shares (or when the Shares are acquired during the course of the year, the tax is levied in proportion to the actual days of holding over the calendar year). You should consult with your personal tax advisor about the foreign financial assets tax.

JAPAN

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You will be required to report to the Japanese tax authorities details of any assets held outside of Japan as of December 31st (including any Shares acquired under the Plan) to the extent such assets have a total net fair market value exceeding ¥50,000,000. Such report will be due by March 15 each year. You should consult with your personal tax advisor as to whether the reporting obligation applies to you and whether you will be required to include in the report details of any Shares or cash that you hold.

JORDAN

There are no country-specific provisions.

KOREA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You are required to declare all foreign financial accounts (*e.g.* non-Korean bank accounts, brokerage accounts holding Shares, etc.) to the Korean tax authority and file a report regarding such accounts if the monthly balance of such accounts exceeds a certain threshold on any month-end date during a calendar year. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor to ensure compliance with this requirement.

LATVIA

There are no country-specific provisions.

LEBANON

NOTIFICATIONS

Securities Law Information. The Plan does not constitute the marketing or offering of securities in Lebanon pursuant to Law No. 161 (2011), the Capital Markets Law. Offerings under the Plan are being made only to eligible Employees of your Employer, the Company or an Affiliate.

LITHUANIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you are required to submit an assets declaration, you should include assets held outside of Lithuania (*e.g.*, Shares).

MEXICO

TERMS AND CONDITIONS

Acknowledgement of the Agreement. In accepting the Award granted hereunder, you acknowledge that you have received a copy of the Plan, have reviewed the Plan and the Agreement, including this Appendix, in their entirety and fully understand and accept all provisions of the Plan and the Agreement, including this Appendix. You further acknowledge that you have read and specifically and expressly approve the terms and conditions of Section XI of the Agreement, in which the following is clearly described and established:

(1) Your participation in the Plan does not constitute an acquired right.

(2) The Plan and your participation in the Plan are offered by Amgen Inc. on a wholly discretionary basis.

(3) Your participation in the Plan is voluntary.

(4) Amgen Inc. and its Affiliates are not responsible for any decrease in the value of the Units granted and/or Shares issued under the Plan.

Labor Law Acknowledgement and Policy Statement. In accepting any Award granted hereunder, you expressly recognize that Amgen Inc., with registered offices at One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., is solely responsible for the administration of the Plan and that your participation in the Plan and acquisition of Shares do not constitute an employment relationship between you and Amgen Inc. since you are participating in the Plan on a wholly commercial basis and your sole employer is Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Based on the foregoing, you expressly recognize that the Plan and the benefits that you may derive from participation in the Plan do not establish any rights between you and your Employer, Amgen-Mexico, and do not form part of the employment conditions and/or benefits provided by Amgen-Mexico and any modification of the Plan or its termination shall not constitute a change or impairment of the terms and conditions of your employment.

You further understand that your participation in the Plan is as a result of a unilateral and discretionary decision of Amgen Inc.; therefore, Amgen Inc. reserves the absolute right to amend and/or discontinue your participation in the Plan at any time without any liability to you.

Finally, you hereby declare that you do not reserve to yourself any action or right to bring any claim against Amgen Inc. for any compensation or damages regarding any provision of the Plan or the benefits derived under the Plan, and you therefore grant a full and broad release to Amgen Inc., its Affiliates, stockholders, officers, agents or legal representatives with respect to any claim that may arise.

Spanish Translation

Reconocimiento del Otorgamiento. Al aceptar cualquier Otorgamiento bajo el presente documento, usted reconoce que ha recibido una copia del Plan, que ha revisado el mismo en su totalidad, así como también el Acuerdo de Opción, el Acuerdo, incluyendo este Apéndice, además que comprende y está de acuerdo con todas las disposiciones tanto del Plan y del Otorgamiento, incluyendo este Apéndice. Asimismo, usted reconoce que ha leído y manifiesta específicamente y expresamente la conformidad con los términos y condiciones establecidos en la Sección XI del Acuerdo, en los que se establece y describe claramente que:

(1) Su participación en el Plan de ninguna manera constituye un derecho adquirido.

(2) El Plan y su participación en el mismo son ofrecidos por Amgen Inc. de forma completamente discrecional.

(3) Su participación en el Plan es voluntaria.

(4) Amgen Inc. y sus Afiliados no son responsables de ninguna disminución en el valor de Unidades o de las Acciones Comunes emitidas mediante el Plan.

Reconocimiento de la Ley Laboral y Declaración de Política. Al aceptar cualquier Otorgamiento de Acciones bajo el presente, usted reconoce expresamente que Amgen Inc., con oficinas registradas localizadas en One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., es la única responsable de la administración del Plan y que su participación en el mismo y la adquisición de Acciones Comunes no constituyen de ninguna manera una relación laboral entre usted y Amgen Inc., debido a que su participación en el Plan es únicamente una relación comercial y que su único empleador es Amgen Mexico S.A. de C.V. (" Amgen-México"). Derivado de lo anterior, usted reconoce expresamente que el Plan y los beneficios a su favor que pudieran derivar de la participación en el mismo, no establecen ningún derecho entre usted y su empleador, Amgen – México, y no forman parte de las condiciones laborales y/o los beneficios otorgados por Amgen – México, y cualquier modificación del Plan o la terminación del mismo no constituirá un cambio o desmejora de los términos y condiciones de su trabajo.

Asimismo, usted entiende que su participación en el Plan es resultado de la decisión unilateral y discrecional de Amgen Inc., por lo tanto, Amgen Inc. se reserva el derecho absoluto de modificar y/o descontinuar su participación en el Plan en cualquier momento y sin ninguna responsabilidad para usted.

Finalmente, usted manifiesta que no se reserva ninguna acción o derecho que origine una demanda en contra de Amgen Inc., por cualquier compensación o daños y perjuicios, en relación con cualquier disposición del Plan o de los beneficios derivados del mismo, y en consecuencia usted exime amplia y completamente a Amgen Inc. de toda responsabilidad, como así también a sus Afiliadas, accionistas, directores, agentes o representantes legales con respecto a cualquier demanda que pudiera surgir.

NETHERLANDS

NOTIFICATIONS

Securities Law Information.

Attention! This investment falls outside AFM supervision.
No prospectus required for this activity.

NORWAY

There are no country-specific provisions.

POLAND

NOTIFICATIONS

Exchange Control Information. Polish residents holding foreign securities (including Shares) and maintaining accounts abroad must file reports with the National Bank of Poland if the aggregate value of Shares and cash held in such foreign accounts exceeds PLN 7,000,000. If required, the reports are due on a quarterly basis by the 20th day following the end of each quarter and must be filed on special forms available on the website of the National Bank of Poland. In addition, Polish residents are required to transfer funds through a bank account in Poland if the transferred amount in any single transaction exceeds a specified threshold (currently €15,000 (or PLN 15,000 if such transfer of funds is associated with the business activity of a consultant)). You must store all documents connected with any foreign exchange transactions you engage in for a period of five (5) years from the end of the year when such transactions were made. Penalties may apply for failure to comply with exchange control requirements.

PORTUGAL

TERMS AND CONDITIONS

Consent to Receive Information in English. You hereby expressly declare that you have full knowledge of the English language and have read, understood and fully accepted and agreed with the terms and conditions established in the Plan and Agreement.

Conhecimento da Lingua. *Por meio do presente, eu declaro expressamente que tem pleno conhecimento da língua inglesa e que li, compreendi e livremente aceitei e concordei com os termos e condições estabelecidas no Plano e no Acordo.*

PUERTO RICO

There are no country-specific provisions.

ROMANIA

NOTIFICATIONS

Exchange Control Information. Any transfer of funds exceeding €15,000 (whether via one transaction or several transactions that appear to be linked to each other) must be reported to the National Office for Prevention and Control of Money Laundering on specific forms by the relevant bank or financial institution. If you deposit proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents in a bank account in Romania, you may be required to provide the Romanian bank assisting with the transaction with appropriate documentation explaining the source of the income. You should consult with a legal advisor to determine whether you will be required to submit such documentation to the Romanian bank.

RUSSIA

TERMS AND CONDITIONS

Exchange Control Requirements. As the Shares are listed on a specified foreign stock exchange determined according to the Russian law "On the Securities Market," Russian residents may receive certain funds (*e.g.*, cash Dividends and sale proceeds but not Dividend Equivalents) directly into a foreign bank account held in an Organization for Economic Cooperation and Development ("OECD") country (such as the U.S.) or a Financial Action Task Force ("FATF") country without first repatriating such cash proceeds (as was previously required).

You understand and agree that, pursuant to Russian exchange control requirements, you may still be required to repatriate to Russia certain cash proceeds (*e.g.*, Dividend Equivalents) paid on Shares, unless such proceeds will be paid into and held in your brokerage account in the U.S., for example, for reinvestment purposes, or a different statutory exception applies. You should consult with your personal legal advisor in this regard.

You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in Russia. Without limiting the generality of the foregoing, you acknowledge that the Company reserves the right, in its sole discretion depending on developments in Russian exchange control laws and regulations, to force the immediate sale of any Shares to be issued upon vesting of the Units. You further agree that, if applicable, the Company is authorized to instruct Merrill Lynch Bank & Trust Co., FSB (or such other broker as may be designated by the Company) to assist with the mandatory sale of such Shares (on your behalf pursuant to this authorization) and you expressly authorize Merrill Lynch Bank & Trust Co., FSB (or such other broker as may be designated by the Company) to complete the sale of such Shares. You further acknowledge that Merrill Lynch Bank & Trust Co., FSB (or such other broker as may be designated by the Company) is under no obligation to arrange for the sale of the Shares at any particular trading price. Upon the sale of Shares, you will receive the cash proceeds from the sale of Shares, less any brokerage fees or commissions and subject to your obligations in connection with the Tax Obligations.

Securities Law Requirements. Any Units granted hereunder, the Agreement, including this Appendix, the Plan and all other materials you may receive regarding your participation in the Plan or any Units granted hereunder do not constitute advertising or an offering of securities in Russia. The issuance of Shares under the Plan has not and will not be registered in Russia; therefore, Shares may not be offered or placed in public circulation in Russia.

In no event will Shares acquired under the Plan be delivered to you in Russia; all Shares will be maintained on your behalf in the United States.

You are not permitted to sell any Shares acquired under the Plan directly to a Russian legal entity or resident.

Labor Law Acknowledgement. You acknowledge that if you continue to hold Shares acquired under the Plan after an involuntary termination of your employment, you will not be eligible to receive unemployment benefits in Russia.

Data Privacy Notice. The following provision supplements Section XIV of the Agreement:

You understand and agree that you must complete and return a Consent to Processing of Personal Data (the "Consent") form to the Company. Further, you understand and agree that if you do not complete and return a Consent form to the Company, the Company will not be able to administer or maintain the Units. Therefore, you understand that refusing to complete a Consent form or withdrawing your consent may affect your ability to participate in the Plan.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Russian residents are required to notify Russian tax authorities within one (1) month of opening, closing or changing the details of a foreign account. Russian residents also are required to report (i) the beginning and ending balances in such a foreign bank account each year and (ii) transactions related to such a foreign account during the year to the Russian tax authorities, on or before June 1 of the following year. The tax authorities can require you to provide appropriate supporting documents related to transactions in a foreign bank account. You are encouraged to contact your personal advisor before remitting your proceeds from participation in the Plan to Russia as exchange control requirements may change.

Anti-Corruption Legislation Information. Individuals holding public office in Russia, as well as their spouses and dependent children, may be prohibited from opening or maintaining a foreign brokerage or bank account and holding any securities, whether acquired directly or indirectly, in a foreign company (including Shares acquired under the Plan). You should consult with your personal legal advisor to determine whether this restriction applies to your circumstances.

SINGAPORE

TERMS AND CONDITIONS

Restriction on Sale and Transferability. You hereby agree that any Shares acquired pursuant to the Units will not be offered for sale in Singapore prior to the six (6)-month anniversary of the Grant Date, unless such sale or offer is made pursuant to one or more exemptions under Part XIII Division 1 Subdivision (4) (other than section 280) of the Securities and Futures Act (Chap. 289, 2006 Ed.) ("SFA"), or pursuant to, and in accordance with the conditions of, any other applicable provisions of the SFA.

NOTIFICATIONS

Securities Law Information. The grant of the Units is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA, on which basis it is exempt from the prospectus and registration requirements under the SFA, and is not made with a view to the Units

being subsequently offered for sale to any other party. The Plan has not been, and will not be, lodged or registered as a prospectus with the Monetary Authority of Singapore.

Chief Executive Officer and Director Notification Requirement. The Chief Executive Officer ("CEO") and the directors (including alternate, substitute, associate and shadow directors) of a Singapore Affiliate are subject to certain notification requirements under the Singapore Companies Act. The CEO and directors of a Singapore Affiliate must notify the Singapore Affiliate in writing of an interest (*e.g.*, Units, Shares, etc.) in the Company or any related company within two (2) business days of (i) its acquisition or disposal, (ii) any change in a previously disclosed interest (*e.g.,* when the Shares are sold), or (iii) becoming the CEO or a director.

SLOVAK REPUBLIC

There are no country-specific provisions.

SLOVENIA

There are no country-specific provisions.

SPAIN

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XI of the Agreement:

By accepting the Units granted hereunder, you consent to participation in the Plan and acknowledge that you have received a copy of the Plan.

You understand that the Company has unilaterally, gratuitously and in its sole discretion decided to grant any Units under the Plan to individuals who may be members of the Board or Employees of the Company or its Affiliates throughout the world. The decision is a limited decision, which is entered into upon the express assumption and condition that any Units granted will not economically or otherwise bind the Company or any of its Affiliates on an ongoing basis, other than as expressly set forth in the Agreement, including this Appendix. Consequently, you understand that the Units granted hereunder are given on the assumption and condition that they shall not become a part of any employment contract (either with the Company or any of its Affiliates) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Further, you understand and freely accept that there is no guarantee that any benefit whatsoever shall arise from any gratuitous and discretionary grant of Units since the future value of the Units and the underlying Shares is unknown and unpredictable. In addition, you understand that any Units granted hereunder would not be made but for the assumptions and conditions referred to above; thus, you understand, acknowledge and freely accept that, should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then any grant of Units or right to Units shall be null and void.

Further, the vesting of the Units is expressly conditioned on your continued and active rendering of service, such that if your employment terminates for any reason whatsoever, the Units may cease vesting immediately, in whole or in part, effective on the date of your termination of employment (unless otherwise specifically provided in Section I of the Agreement). This will be the case, for example, even if (1) you are considered to be unfairly dismissed without good cause (*i.e.*, subject to a "despido improcedente"); (2) you are dismissed for disciplinary or objective reasons or due to a collective dismissal; (3) you terminate service due to a change of work location, duties or any other employment or contractual condition; (4) you terminate service due to a unilateral breach of contract by the Company or an Affiliate; or (5) your employment terminates for any other reason whatsoever. Consequently, upon termination of your employment for any of the above reasons, you may automatically lose any rights to Units that were not vested on the date of your termination of employment, as described in the Plan and the Agreement.

You acknowledge that you have read and specifically accept the conditions referred to in Section I of the Agreement.

NOTIFICATIONS

Securities Law Information. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Agreement (including this Appendix) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

Exchange Control Information. If you acquire Shares under the Plan, you must declare the acquisition to the *Direccion General de Comercio e Inversiones* (the "DGCI"). If you acquire the Shares through the use of a Spanish financial institution, that institution will automatically make the declaration to the DGCI for you; otherwise, you will be required to make the declaration by filing a D-6 form. You must declare ownership of any Shares with the DGCI each January while the Shares are owned and must also report, in January, any sale of Shares that occurred in the previous year for which the report is being made, unless the sale proceeds exceed the applicable threshold, in which case the report is due within one (1) month of the sale.

Foreign Asset/Account Reporting Information. You are required to declare electronically to the Bank of Spain any securities accounts (including brokerage accounts held abroad), as well as the Shares held in such accounts if the value of the transactions during the prior tax year or the balances in such accounts as of December 31 of the prior tax year exceed €1,000,000.

To the extent that you hold Shares and/or have bank accounts outside of Spain with a value in excess of €50,000 (for each type of asset) as of December 31 each year, you will be required to report information on such assets in your tax return (tax form 720) for such year. After such Shares and/or accounts are initially reported, the reporting obligation will apply for subsequent years only if the value of any previously-reported Shares or accounts increases by more than €20,000 or if you sell or otherwise dispose of previously-reported Shares or accounts. If the value of such Shares

and/or accounts as of December 31 does not exceed €50,000, a summarized form of declaration may be presented.

SWEDEN

There are no country-specific provisions.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. The Awards are not intended to be publicly offered in or from Switzerland. Because this is a private offering in Switzerland, the Units are not subject to registration in Switzerland. Neither this document nor any other materials relating to the Units (i) constitutes a prospectus as such term is understood pursuant to article 652a of the Swiss Code of Obligations, (ii) may be publicly distributed nor otherwise made publicly available in Switzerland or (iii) have been or will be filed with, approved or supervised by any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority ("FINMA").

TAIWAN

NOTIFICATIONS

Exchange Control Information. You may acquire and remit foreign currency (including proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents) up to US$5,000,000 per year without justification. If the transaction amount is TWD500,000 or more in a single transaction, you must submit a Foreign Exchange Transaction Form. If the transaction amount is US$500,000 or more in a single transaction, you must also provide supporting documentation to the satisfaction of the remitting bank.

THAILAND

NOTIFICATIONS

Exchange Control Information. If proceeds from the sale of Shares or the receipt of any Dividends or Dividend Equivalents exceed US$50,000, you must (i) immediately repatriate such funds to Thailand and (ii) report the inward remittance to the Bank of Thailand on a Foreign Exchange Transaction Form. In addition, within three hundred and sixty (360) days of repatriation, you must either convert any funds repatriated to Thailand to Thai Baht or deposit the funds in a foreign exchange account with a Thai commercial bank. Any such commercial bank must be duly authorized by the Bank of Thailand to engage in the purchase, exchange and withdrawal of foreign currency.

TURKEY

NOTIFICATIONS

Securities Law Information. The Units are made available only to employees of the Company and its Affiliates, and the offer of participation in the Plan is a private offering. The grant of the Award and the issuance of Shares at vesting takes place outside of Turkey.

Exchange Control Information. Any activity related to investments in foreign securities (*e.g.*, the sale of Shares under the Plan, the receipt of cash Dividends or Dividend Equivalents) must be conducted through a bank or financial intermediary institution licensed by the Turkish Capital Markets Board and should be reported to the Turkish Capital Markets Board by the bank or intermediary assisting with the transaction. You should contact a personal legal advisor for further information regarding these requirements.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Information. Units under the Plan are granted only to select Board members and Employees of the Company and its Affiliates and are for the purpose of providing equity incentives. The Plan and the Agreement are intended for distribution only to such Board members and Employees and must not be delivered to, or relied on by, any other person. You should conduct your own due diligence on the Units offered pursuant to this Agreement. If you do not understand the contents of the Plan and/or the Agreement, you should consult an authorized financial adviser. The Emirates Securities and Commodities Authority and the Dubai Financial Services Authority have no responsibility for reviewing or verifying any documents in connection with the Plan. Further, the Ministry of the Economy and the Dubai Department of Economic Development have not approved the Plan or the Agreement nor taken steps to verify the information set out therein, and have no responsibility for such documents.

UNITED KINGDOM

TERMS AND CONDITIONS

Tax Withholding. This provision supplements Section III of the Agreement:

Without limitation to Section III of the Agreement, you agree that you are liable for all Tax Obligations and hereby covenant to pay all such Tax Obligations as and when requested by the Company or your Employer or by Her Majesty's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and your Employer against any taxes that they are required to pay or withhold or have paid or will pay to HMRC (or any other tax authority or any other relevant authority) on your behalf.

Notwithstanding the foregoing, if you are an executive officer or director (as within the meaning of Section 13(k) of the Exchange Act, as amended from time to time), you understand that you may not be able to indemnify the Company or your Employer for the amount of income tax not collected

from or paid by you, as it may be considered a loan. In the event that you are an executive officer or director and income tax is not collected from you within ninety (90) days after the end of the tax year in which the Taxable Event occurs, the amount of any uncollected income tax may constitute an additional benefit to you on which additional income tax and national insurance contributions ("NICs") may be payable. You acknowledge that you are responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing your Employer for the value of any NICs due on this additional benefit, which the Company or your Employer may recover from you by any of the means set forth in Section III of the Agreement.

If the maximum applicable withholding rate is used, any over-withheld amount may be credited to you by the Company or your Employer (with no entitlement to the Common Stock equivalent) or if not so credited, you may seek a refund from the local tax authorities.

Joint Election. If you are a resident of the United Kingdom between the Grant Date and the vesting of the Units, as a condition of the Units granted hereunder, you agree to accept any liability for secondary Class 1 National Insurance Contributions (the "Employer NICs"), which may be payable by the Company or your Employer with respect to the Units and/or payment of the Units and issuance of Shares pursuant to the Units, the assignment or release of the Units for consideration, or the receipt of any other benefit in connection with the Units.

Without limitation to the foregoing, you agree to make an election (the "Election"), in the form specified and/or approved for such election by HMRC, that the liability for your Employer NICs payments on any such gains shall be transferred to you to the fullest extent permitted by law. You further agree to execute such other elections as may be required between you and any successor to the Company and/or your Employer. You hereby authorize the Company and your Employer to withhold such Employer NICs by any of the means set forth in Section III of the Agreement.

Failure by you to enter into an Election, withdrawal of approval of the Election by HMRC or a joint revocation of the Election by you and the Company or your Employer, as applicable, shall be grounds for the forfeiture and cancellation of the Units, without any liability to the Company or your Employer.

UNITED STATES

TERMS AND CONDITIONS

Termination of Employment. The following provision replaces Section I(i) of the Agreement:

(i) "termination of your active employment" shall mean the last date that you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of termination of your employment (whether or not in breach of local labor laws), your right to receive Units and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively employed; *provided*, *however*, that such right will be extended by any notice period mandated by law (*e.g.*, the Worker Adjustment and Retraining

Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave (as applicable), unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave; *provided further*, that notwithstanding the effect of any such extension, in no event will the Units be paid later than the 90th day following your termination of employment;

Form of Award Notice

[*The information set forth in this Award Notice will be contained on the related pages on Merrill Lynch Benefits Website (or the website of any successor company to Merrill Lynch Bank & Trust Co., FSB). This Award Notice shall be replaced by the equivalent pages on such website. References to Award Notice in this Agreement shall then refer to the equivalent pages on such website.*]

This notice of Award (the "Award Notice") sets forth certain details relating to the grant by the Company to you of the Award identified below, pursuant to the Plan. The terms of this Award Notice are incorporated into the Agreement that accompanies this Award Notice and made part of the Agreement. Capitalized terms used in this Award Notice that are not otherwise defined in this Award Notice have the meanings given to such terms in the Agreement.

Employee:	
Employee ID:	
Address:	
Award Type:	
Grant ID:	
Plan:	Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time
Grant Date:	
Grant Price:	$_____
Number of Shares:	
Number of Units	
Vesting Date:	Means the vesting date indicated in the Vesting Schedule
Vesting Schedule:	Means the schedule of vesting set forth under Vesting Details
Vesting Details:	Means the presentation (tabular or otherwise) of the Vesting Date and the quantity of Shares vesting

IMPORTANT NOTICE REGARDING ACCEPTANCE OF THE AWARD AND THE REQUIREMENT TO OPEN A BROKERAGE ACCOUNT:

RESIDENTS OF THE U.S. AND PUERTO RICO: Please read this Award Notice, the Plan and the Agreement (collectively, the "Grant Documents") carefully. If you, as a resident of the U.S. or Puerto Rico, do **not** wish to receive this Award and/or you do **not** consent and agree to the terms and conditions on which this Award is offered, as set forth in the Grant Documents, then you must reject the Award by contacting the Merrill Lynch call center (800) 97AMGEN (800-972-6436) within the U.S., Puerto Rico and Canada or +1 (609) 818-8910 from all other countries (Merrill Lynch will accept the charges for your call) no later than the forty-fifth calendar day following the day on which this Award Notice is made available to you, in which case the Award will be canceled. For the purpose of determining the forty-five calendar days, Day 1 will be the day **immediately** following the day on which this Award Notice is made available to you. Your failure to notify the Company of your rejection of the Award within this specified period will constitute your acceptance of the Award and your agreement with all terms and conditions of the Award, as set forth in the

Grant Documents. If you agree to the terms and conditions of your grant and you desire to accept it, then no further action is needed on your part to accept the grant. However, you must still open a brokerage account as directed by the Company, by 1:00 pm Pacific Time on or before the date that is 11 months after the date of grant. This step is necessary to process transactions related to your equity grant. If you do not open a brokerage account by this deadline, **your grant will be canceled**.

PERFORMANCE UNIT AGREEMENT

THE SPECIFIC TERMS OF YOUR GRANT OF PERFORMANCE UNITS ARE FOUND IN THE PAGES RELATING TO THE GRANT OF PERFORMANCE UNITS FOUND ON MERRILL LYNCH BENEFITS WEBSITE (OR THE WEBSITE OF ANY SUCCESSOR COMPANY TO MERRILL LYNCH BANK & TRUST CO., FSB) (THE " AWARD NOTICE") WHICH ACCOMPANIES THIS DOCUMENT. THE TERMS OF THE AWARD NOTICE ARE INCORPORATED INTO THIS PERFORMANCE UNIT AGREEMENT.

On the Grant Date specified in the Award Notice, Amgen Inc., a Delaware corporation (the " Company"), has granted to you, the grantee named in the Award Notice, under the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "Plan"), the Number of Performance Units (the "Performance Units") specified in the Award Notice on the terms and conditions set forth in this Performance Unit Agreement (and any applicable special terms and conditions for your country set forth in the attached Appendix A (as described in greater detail in Section XIV below)) (collectively, this "Agreement"), the Plan, the Amgen Inc. 2009 Performance Award Program, as amended and/or restated from time to time (the "Program") and the Resolutions (as defined in the Award Notice). Capitalized terms not defined herein shall have the meanings assigned to such terms in the Program.

I. Performance Period. The Performance Period shall have the meaning set forth in the Award Notice.

II. Value of Performance Units. The value of each Performance Unit is equal to a share of Common Stock.

III. Performance Goals. An amount of the Performance Units up to the maximum amount specified in the Resolutions shall be earned, depending on the extent to which the Company achieves objectively determinable performance goals established by the Committee pursuant to the Resolutions. The Performance Units earned shall be calculated in accordance with the Resolutions and the Program.

IV. Form and Timing of Settlement.

(a) *General*. Subject to Section XIII and except as set forth in the Program, any Performance Units earned pursuant to Section III above shall be settled by the Company delivering to you a number of Shares equal to the number of Shares covered by the earned Performance Units or in a lump sum in cash with a value equal to the Fair Market Value of the number of Shares subject to the earned Performance Units as of the last day of the Performance Period (without interest thereon), or in a combination of Shares and cash, as determined by the Administrator at any time prior to settlement and in its discretion, as soon as practicable, and in any event within 90 days, after the last day of the Performance Period, in each case, subject to the terms of the Program (including Section 4.2 thereof). Shares issued in respect of a Performance Unit shall be deemed to be issued in consideration of past services actually rendered by you to the Company or an Affiliate or for its benefit for which you have not

previously been compensated or for future services to be rendered, as the case may be, which the Company deems to have a value at least equal to the aggregate par value thereof.

(b) *Retirement*. In the event that your employment with the Company or an Affiliate is terminated prior to the last business day of the Performance Period by reason of your Voluntary Retirement and you are Retirement-Eligible on the date of such termination, the full or prorated amount of your Award, if any, applicable to the Performance Period shall be paid in accordance with the provisions of Article VI of the Program. For purposes of the foregoing, the amount of your Award (rounded down to the nearest whole number) shall be determined based on the Company's performance as compared to the Performance Goals for the Performance Period and (i) if the Award was granted with respect to a Performance Period commencing in a calendar year prior to the calendar year in which your Voluntary Retirement occurs, the full amount of the Award is payable, and (ii) if the Award was granted with respect to the Performance Period commencing in the calendar year in which your Voluntary Retirement occurs, the Award otherwise payable is multiplied by a fraction (rounded to two decimal places), the numerator of which is the number of complete months of employment during such calendar year, and the denominator of which is twelve (12). Notwithstanding the foregoing, you shall not be entitled to such full or prorated amount of your Award pursuant to this paragraph (b) unless either you sign a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company) and deliver it to the Company no later than the date specified by the Company, or the Company waives such release requirement in writing; *provided*, *however*, that in no event shall payment of such full or prorated amount of your Award be made later than the specified payment date as set forth in Section 6.1 of the Program. This paragraph (b) shall supersede Section 7.1(a) of the Program.

(c) *Death and Disability*. In the event that your employment with the Company or an Affiliate is terminated prior to the last business day of the Performance Period by reason of your death or Permanent and Total Disability, the full or prorated amount of your Award, if any, applicable to such Performance Period shall be paid in accordance with the provisions of Article VI of the Program. For purposes of the foregoing, the amount of your Award (rounded down to the nearest whole number) shall be determined based on the Company's performance as compared to the Performance Goals for the Performance Period and (i) if the Award was granted with respect to a Performance Period commencing in a calendar year prior to the calendar year in which such termination occurs, the full amount of the Award is payable, and (ii) if the Award was granted with respect to the Performance Period commencing in the calendar year in which such termination occurs, the Award otherwise payable is multiplied by a fraction (rounded to two decimal places), the numerator of which is the number of complete months of employment during such calendar year, and the denominator of which is twelve (12). Notwithstanding the foregoing, if your employment is terminated due to your Permanent and Total Disability, you shall not be entitled to such full or prorated amount of your Award pursuant to this paragraph (c) unless either you sign a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment

with the Company) and deliver it to the Company no later than the date specified by the Company, or the Company waives such release requirement in writing; *provided*, *however*, that in no event shall payment of such full or prorated amount of your Award be made later than the specified payment date as set forth in Section 6.1 of the Program. This paragraph (c) shall supersede Section 7.1(b) of the Program.

(d) *Other*. In the event that your employment with the Company or an Affiliate is terminated prior to the last business day of the Performance Period for any reason other than as specified in paragraphs (b) and (c) above, all of your rights to an Award for the Performance Period shall be forfeited, unless, prior to the payment date described in Article VI of the Program, the Company, in its sole discretion, makes a written determination to otherwise pay the full or prorated amount of your Award, if any, applicable to the Performance Period, which full or prorated amount shall be paid in accordance with the provisions of Article VI of the Program. For purposes of the foregoing, if the payment of your Award is prorated, the amount of your Award (rounded down to the nearest whole number) shall be determined based on the Company's performance as compared to the Performance Goals for the Performance Period and (i) if the Award was granted with respect to a Performance Period commencing in a calendar year prior to the calendar year in which such termination occurs, the full amount of the Award is payable, and (ii) if the Award was granted with respect to the Performance Period commencing in the calendar year in which such termination occurs, the Award otherwise payable is multiplied by a fraction (rounded to two decimal places), the numerator of which is the number of complete months of employment during such calendar year, and the denominator of which is twelve (12). Notwithstanding the foregoing, you shall not be entitled to such full or prorated amount of your Award pursuant to this paragraph (d) unless either you sign a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company) and deliver it to the Company no later than the date specified by the Company, or the Company waives such release requirement in writing; *provided*, *however*, that in no event shall payment of such full or prorated amount of your Award be made later than the specified payment date as set forth in Section 6.1 of the Program. This paragraph (d) shall supersede Section 7.1(c) of the Program.

V. Issuance of Certificates; Tax Withholding. Regardless of any action the Company or your actual employer (the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items related to your participation in the Plan and the Program and legally applicable to you (the "Tax Obligations"), you acknowledge that the ultimate liability for all Tax Obligations is and remains your responsibility and may exceed the amount, if any, actually withheld by the Company and/or your Employer. You further acknowledge that the Company and/or your Employer (i) make no representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Performance Units, including the grant of the Performance Units, the vesting of the Performance Units, the conversion of the Performance Units into shares or the receipt of an equivalent cash payment, the subsequent sale of any shares acquired at settlement and the receipt of any Dividends (as defined in Section VI, below) or Dividend Equivalents; and

(ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Performance Units to reduce or eliminate your liability for Tax Obligations or to achieve any particular tax result. Furthermore, if you become subject to tax in more than one jurisdiction, you acknowledge that the Company and/or your Employer (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, you shall pay or make adequate arrangements satisfactory to the Company or to your Employer (in their sole discretion) to satisfy all Tax Obligations. In this regard, you authorize the Company and/ or your Employer, or their respective agents, at their discretion, to satisfy all applicable Tax Obligations by one or a combination of the following:

(a) withholding from your wages or other cash compensation paid to you by the Company and/or your Employer; or

(b) withholding from proceeds of the sale of Shares issued upon settlement of the Performance Units, either through a voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or

(c) withholding in Shares to be issued or cash to be paid upon settlement of the Performance Units provided that, if Shares are withheld, the Company and your Employer shall only withhold an amount of Shares with a fair market value equal to the Tax Obligations.

Depending on the withholding method, the Company may withhold or account for Tax Obligations by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates. If the Tax Obligations are satisfied by withholding in Shares, for tax purposes, you are deemed to have been issued the full number of shares subject to the earned Performance Units, notwithstanding that a number of Shares is held back solely for the purpose of paying the Tax Obligations due as a result of any aspect of your participation in the Plan (any Shares withheld by the Company hereunder shall not be deemed to have been issued by the Company for any purpose under the Plan and shall remain available for issuance thereunder).

Finally, you shall pay to the Company or your Employer any amount of Tax Obligations that the Company or your Employer may be required to withhold or account for as a result of your participation in the Plan and the Program that cannot be satisfied by the means previously described. You agree to take any further actions and to execute any additional documents as may be necessary to effectuate the provisions of this Section V. Notwithstanding Section IV above, the Company may refuse to issue or deliver the Shares or the proceeds of the sale of Shares if you fail to comply with your obligations in connection with the Tax Obligations.

VI. Dividend Equivalents

(a) Crediting of Dividend Equivalents. Subject to this Section VI, Dividend Equivalents shall be credited on each Performance Unit granted to you under this Agreement in the manner set forth in the remainder of this Section VI. If the Company declares one or more dividends

or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the Grant Date through and including the day immediately preceding the day the Shares subject to the Performance Units are issued to you, whether in the form of cash, Common Stock or other property, then, on the date such Dividend is paid to the Company's stockholders, you shall be credited with an amount equal to the amount or fair market value of such Dividend which would have been payable to you if you held a number of Shares equal to the number of Performance Units granted to you on the Grant Date (including any previously credited Dividends which have been deemed to have been reinvested in Common Stock as provided by the next succeeding sentence), as of each such record date for each such Dividend (not including on any Performance Units which were previously paid or forfeited) as if each such amount had been reinvested in Common Stock as of the date of the payment of such Dividend (such accumulated dividends, the "Target Accumulated Dividends"). Each such Dividend Equivalent shall be deemed to have been reinvested in Common Stock as of the Dividend payment date. Dividend Equivalents shall be payable in full Shares, unless the Administrator determines, at any time prior to payment and in its discretion, that they shall be payable in cash. Dividend Equivalents payable with respect to fractional Shares shall be paid in cash.

(b) Treatment of Dividend Equivalents. Except as otherwise expressly provided in this Section VI any Dividend Equivalents credited to you shall be subject to all of the provisions of this Agreement which apply to the Performance Units with respect to which they have been credited and shall be payable, if at all, at the time and to the extent that the underlying Performance Unit becomes payable. Dividend Equivalents shall not be payable on any Performance Units that do not vest, or are forfeited, pursuant to the terms of this Agreement. Dividend Equivalent rights and any amounts that may become distributable in respect thereof shall be treated separately from the Performance Units and the rights arising in connection therewith for purposes of the designation of time and form of payments required by Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date, "Section 409A").

VII. Nontransferability. No benefit payable under, or interest in, this Agreement or in the Shares that may become issuable to you hereunder shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, your or your beneficiary's debts, contracts, liabilities or torts; *provided, however*, nothing in this Section VII shall prevent transfer (i) by will or (ii) by applicable laws of descent and distribution.

VIII. No Contract for Employment. This Agreement is not an employment or service contract with the Company or an Affiliate and nothing in this Agreement shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ or service of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment or service with the Company or an Affiliate.

IX. Nature of Grant. In accepting the grant of Performance Units, you acknowledge, understand and agree that:

(a) the Plan and the Program are established voluntarily by the Company, are discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan and in the Program;

(b) the grant of the Performance Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future awards of Performance Units, or benefits in lieu of Performance Units, even if Performance Units have been awarded in the past;

(c) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(d) your participation in the Plan and the Program is voluntary;

(e) the grant of Performance Units, the Shares subject to the Performance Units, and the income from and value of same, are not intended to replace any pension rights or compensation;

(f) neither the grant of Performance Units nor any provision of this Agreement, the Plan, the Program or the policies adopted pursuant to the Plan or Program confer upon you any right with respect to employment or continuation of current employment and shall not interfere with the ability of your Employer to terminate your employment or service relationship (if any) at any time;

(g) in the event that you are not an employee of the Company or any Affiliate, the Performance Units shall not be interpreted to form an employment contract or relationship with the Company or any Affiliate;

(h) the future value of the Shares that may be earned upon the end of the Performance Period is unknown, indeterminable, and cannot be predicted with certainty;

(i) in consideration of the grant of Performance Units hereunder, no claim or entitlement to compensation or damages arises from termination of Performance Units, and no claim or entitlement to compensation or damages shall arise from forfeiture of the Performance Units resulting from termination of your employment by the Company or an Affiliate (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any) and you irrevocably release the Company and your Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, you shall be deemed irrevocably to have waived your entitlement to pursue such claim;

(j) in the event of termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive Performance Units and receive shares under the Plan and the Program, if any, will

terminate effective as of the date that you are no longer actively employed and will not be extended by any notice period (*e.g.*, active employment would not include a period of "garden leave" or similar period mandated under employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any);

(k) unless otherwise agreed with the Company, the Performance Units, the Shares subject to the Performance Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service you may provide as a director of an Affiliate of the Company;

(l) except as otherwise provided in this Agreement or the Plan, the Performance Units and the benefits evidenced by this Agreement do not create any entitlement to have the Performance Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(m) the following provisions apply only if you are providing services outside the United States:

(A) for employment law purposes outside the United States, the Performance Units, the Shares subject to the Performance Units, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments; and

(B) neither the Company, your Employer nor any Affiliate of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Performance Units or of any amounts due to you pursuant to the settlement of the Performance Units or the subsequent sale of any Shares acquired upon settlement.

X. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan and the Program, or your acquisition or sale of the underlying Shares. You should consult with your personal tax, legal and financial advisors regarding your participation in the Plan and the Program before taking any action related thereto.

XI. Notices. Any notices provided for in this Agreement, the Plan or the Program shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company Stock Administrator. Such notices may be given using any

automated system for the documentation, granting or settlement of Awards, such as a system using an internet website or interactive voice response, as approved by the Company.

XII. Resolutions, Plan and Program. This Agreement is subject to all of the provisions of the Resolutions, the Plan and the Program and their provisions are hereby made a part of this Agreement and incorporated herein by reference, including, without limitation, the provisions of Articles 5 and 9 of the Plan (relating to Performance-Based Compensation and Performance Awards, respectively) and Section 13.2 of the Plan (relating to adjustments upon changes in the Common Stock), and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Resolutions, the Plan and the Program, the provisions of the Plan shall control. Notwithstanding any provision of this Agreement or the Program to the contrary, any earned Performance Units paid in cash rather than Shares shall not be deemed to have been issued by the Company for any purpose under the Plan.

XIII. Code Section 409A. The time and form of payment of the Performance Units is intended to comply with the requirements of Section 409A and this Agreement shall be interpreted in accordance with Section 409A. Accordingly, no acceleration or deferral of any payment shall be permitted if it would cause the payment of the Performance Units to violate Section 409A. In addition, notwithstanding any provision herein to the contrary, in the event that following the Grant Date, the Committee determines that it may be necessary or appropriate to do so, the Committee may adopt such amendments to the Plan, Program and/or this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Plan, Program and/or the Performance Units from the application of Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Award, or (b) comply with the requirements of Section 409A; *provided*, *however*, that this paragraph shall not create an obligation on the part of the Committee to adopt any such amendment, policy or procedure or take any such other action. No payment hereunder shall be made to you during the six (6)-month period following your "separation from service" (within the meaning of Section 409A) to the extent that the Company determines that paying such amount at the time set forth herein would be a prohibited distribution under Section 409A(a)(2)(B)(i). If the payment of any such amounts is delayed as a result of the previous sentence, then within thirty (30) days following the end of such six (6)-month period (or, if earlier, your death), the Company shall pay to you (or to your estate) the cumulative amounts that would have otherwise been payable to you during such period, without interest.

XIV. Provisions Applicable to Participants in Foreign Jurisdictions. Notwithstanding any provision of this Agreement or the Program to the contrary, if you are employed by the Company or an Affiliate in any of the countries identified in the attached Appendix A (which constitutes a part of this Agreement), are subject to the laws of any foreign jurisdiction, or relocate to one of the countries included in the attached Appendix A, your award of Performance Units shall be subject to any special terms and conditions for such country set forth in Appendix A and to the following additional terms and conditions:

(a) the terms and conditions of this Agreement, including Appendix A, are deemed modified to the extent necessary or advisable to comply with applicable foreign laws or facilitate the administration of the Plan and the Program;

(b) if applicable, the effectiveness of your Award is conditioned upon its compliance with any applicable foreign laws, regulations, rules or local governmental regulatory exemption and subject to receipt of any required foreign regulatory approvals;

(c) to the extent necessary to comply with applicable foreign laws, the payment of any earned Performance Units shall be made in cash or Common Stock, at the Company's election; and

(d) the Committee may take any other action, before or after an award of Performance Units is made, that it deems necessary or advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals.

Notwithstanding anything to the contrary contained herein, the Company shall not take any actions hereunder, and no Award of Performance Units shall be granted, and no Shares payable with respect to an Award shall be issued, that would violate the Securities Act, the Exchange Act, the Code, or any other securities or tax or other applicable law or regulation, or the rules of any Securities Exchange. Notwithstanding anything to the contrary contained herein, no Shares issuable with respect to an Award shall be issued unless such shares are then registered under the Securities Act, or, if such shares are not then so registered, the Company has determined that such issuance would be exempt from the registration requirements of the Securities Act and that the issuance satisfied all other applicable legal requirements.

XV. Data Privacy. In order for the Company to facilitate your participation in the Plan and the Program, the Company and your Employer must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.

You understand that the Company and your Employer may hold certain personal information about you, including your name, home address and telephone number, email address, date of birth, social insurance number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor, for the purposes of implementing, administering and managing the Plan and the Program ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan and the Program to receive, possess, use, retain and transfer your personal data, in electronic or

other form, for the purpose of implementing, administering and managing your participation in the Plan and the Program, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Performance Units may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Transfers of personal data among Company and its group entities follow applicable laws and our Binding Corporate Rules (BCRs). For more information on Company's BCRs, please visit http://www.amgen.com/bcr/. You acknowledge that the collection, use and transfer of your personal data is necessary to facilitate to your participation in the Plan, as well as to grant you Performance Units or other equity awards and administer or maintain such awards.

You may correct or update your personal data previously provided to Company, by completing the form located at https://preferences.amgen.com. Subject to applicable law, you may have additional rights, including the right to object and/or request destruction of your personal data. To exercise these rights, where applicable, please contact your local human resources representative.

XVI. Language. By electing to accept this Agreement, you acknowledge that you are sufficiently proficient in English, or have consulted with an advisor who is sufficiently proficient in English, so as to allow you to understand the terms and conditions of this Agreement. Furthermore, if you have received this Agreement or any other document related to the Plan and/or the Program translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

XVII. Governing Law and Venue. The terms of this Agreement shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Agreement is made and/or to be performed.

XVIII. Severability. If one or more of the provisions of this Agreement shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Agreement to be construed so as to foster the intent of this Agreement and the Plan.

XIX. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan and/or the Program (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

XX. Imposition of Other Requirements. The Company reserves the right to impose other requirements on your participation in the Plan and the Program, on the Performance Units and on any Shares acquired under the Plan and the Program, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XXI. Waiver. You acknowledge that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by you or any other grantee.

XXII. Headings. This Agreement's section headings are for convenience only and shall not constitute a part of this Agreement or affect this Agreement's meaning.

Very truly yours,
AMGEN INC.

By:_____

Name:
Title:

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMENDED AND RESTATED AMGEN INC. 2009 EQUITY INCENTIVE PLAN, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

AWARD OF PERFORMANCE UNITS (BY COUNTRY)

Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Plan and/or the Agreement to which this Appendix is attached.

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Performance Units granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern the Performance Units granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of November 2019. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you acquire Shares under the Plan, or when you subsequently sell Shares acquired under the Plan and the Program.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the Shares are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares (*e.g.*, Performance Units) or rights linked to the value of Shares (*e.g.*, Dividend Equivalents) during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account, Tax Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Plan (including from any Dividends or Dividend Equivalents received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

ALL EUROPEAN ECONOMIC AREA ("EEA") / EUROPEAN UNION ("EU") JURISDICTIONS, UNITED KINGDOM AND SWITZERLAND

TERMS AND CONDITIONS

Data Privacy Notice. This provision replaces Section XV of the Agreement:

Please refer to the Fair Processing Notice previously provided by your local human resources representative, which notice governs the collection, use and transfer of your personal data necessary for the Company to facilitate your participation in the Plan and the Program. If you have any questions or concerns regarding the Fair Processing Notice, including questions about your rights afforded thereunder, you should contact your local human resources representative or send an email to staffing-hrconnect@amgen.com.

For purposes of implementing, administering and managing the Plan, Company and your Employer may hold certain personal data about you, including your name, home address and telephone number, email address, date of birth, social insurance number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan and the Program to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan and the Program, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Performance Units may be deposited.

ARGENTINA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section IX of the Agreement:

In accepting the grant of Performance Units, you acknowledge, understand and agree that the grant of the Performance Units is made by the Company (not your Employer) in its sole discretion and that the value of the Performance Units or any Shares acquired under the Plan and the Program shall not constitute salary or wages for any purpose under Argentine labor law including, but not

limited to, the calculation of (i) any labor benefits including, without limitation, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (ii) any termination or severance indemnities or similar payments.

NOTIFICATIONS

Securities Law Information. Neither the Performance Units nor the underlying Shares are publicly offered or listed on any stock exchange in Argentina.

Exchange Control Information. Exchange control regulations in Argentina are subject to frequent change. You should consult with your personal legal advisor regarding any exchange control obligations that you may have prior to receiving proceeds from Dividend Equivalents, the sale of Shares or dividends. You must comply with any and all Argentine currency exchange restrictions, approvals and reporting requirements in connection with your participation in the Plan and the Program.

AUSTRALIA

NOTIFICATIONS

Australia Offer Document. The offer of the Award is intended to comply with the provisions of the Corporations Act 2001, ASIC Regulatory Guide 49 and ASIC Class Order CO 14/1000. Additional details are set forth in the Offer Document for the Offer of Performance Units to Australian Resident Employees.

Tax Information. Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies to the Performance Units granted under the Plan, such that the Performance Units are intended to be subject to deferred taxation.

Exchange Control Information. If you are an Australian resident, exchange control reporting is required for cash transactions exceeding AUD10,000 and for international fund transfers. If an Australian bank is assisting with the transaction, the bank will file the report on your behalf. If there is no Australian bank involved in the transfer, you will be required to file the report.

AUSTRIA

NOTIFICATIONS

Exchange Control Information. If you are an Austrian resident and you hold Shares acquired under the Plan and the Program outside of Austria, you must submit a report to the Austrian National Bank. An exemption applies if the value of the Shares as of any given quarter does not meet or exceed €30,000,000 or if the value of the Shares in any given year as of December 31 does not meet or exceed €5,000,000. If the former threshold is exceeded, quarterly obligations are imposed, whereas if the latter threshold is exceeded, annual reports must be given. The quarterly reporting date is as of the last day of the respective quarter and the deadline for filing the quarterly report is

the 15th day of the month following the end of the respective quarter. The annual reporting date is December 31 and the deadline for filing the annual report is January 31 of the following year.

A separate reporting requirement applies when you sell Shares acquired under the Plan and the Program, receive a cash Dividend paid on such Shares or Dividend Equivalents paid in cash. In that case, there may be exchange control obligations if the cash proceeds are held outside of Austria. If the transaction volume of all cash accounts abroad meets or exceeds €10,000,000, the movements and balances of all accounts must be reported monthly, as of the last day of the month, on or before the 15th day of the following month, on the prescribed form (*Meldungen SI-Forderungen und/oder SI-Verpflichtungen*).

BELGIUM

NOTIFICATIONS

Tax Reporting; Foreign Asset/Account Reporting Information. If you are a Belgian resident, you are required to report any taxable income attributable to the Award granted hereunder on your annual tax return. You are also required to report any securities (*e.g.*, Shares acquired under the Plan and the Program) held and bank accounts (including brokerage accounts) opened and maintained outside of Belgium on your annual tax return. In a separate report, you are required to provide the National Bank of Belgium with the account details of any such foreign accounts (including the account number, bank name and country in which such account was opened). This report, as well as information on how to complete it, can be found on the website of the National Bank of Belgium, www.nbb.be, under the *Kredietcentrales / Centrales des crédits* caption.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the Performance Units, you acknowledge that you agree to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the Performance Units, the sale of Shares acquired under the Plan and the Program, the payment of Dividends on such Shares and the receipt of any Dividend Equivalents paid in cash.

Nature of Grant. This provision supplements Section IX of the Agreement:

In accepting the grant of Performance Units, you acknowledge (i) that you are making an investment decision, (ii) that the Shares will be issued to you only if the vesting conditions are met and any necessary services are rendered by you during the vesting period set forth in the Vesting Schedule, and (iii) that the value of the underlying Shares is not fixed and may increase or decrease in value over the vesting period without compensation to you.

NOTIFICATIONS

Exchange Control Information. If you are resident or domiciled in Brazil, you will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights exceeds US$100,000. If such amount exceeds US$100,000,000, the referenced declaration must be submitted quarterly. Assets and rights that must be reported include the following: (i) bank deposits; (ii) loans; (iii) financing transactions; (iv) leases; (v) direct investments; (vi) portfolio investments, including Shares acquired under the Plan and the Program; (vii) financial derivatives investments; and (viii) other investments, such as real estate. Please note that foreign individuals holding Brazilian visas are considered Brazilian residents for purposes of this reporting requirement and must declare at least the assets held abroad that were acquired subsequent to the date of admittance as a resident of Brazil. Individuals holding assets and rights outside of Brazil valued at less than US$100,000 are not required to submit a declaration.

BULGARIA

Foreign Asset/Account Reporting Information. You will be required to annually file statistical forms with the Bulgarian National Bank regarding your receivables in bank accounts abroad as well as your securities abroad (*e.g.*, Shares acquired under the Plan) if the total sum of all such receivables and securities equals or exceeds BGN 50,000 as of the previous calendar year-end. The reports are due by March 31. You should contact your bank in Bulgaria for additional information regarding this requirement.

CANADA

TERMS AND CONDITIONS

Termination of Service. This provision supplements Section IX(j) of the Agreement:

in the event of involuntary termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive an Award and vest in such Award under the Plan and the Program, if any, will terminate effective as of the date that is the earlier of: (1) the date you receive written notice of termination of employment from the Company or your Employer, or (2) the date you are no longer

actively employed by the Company or your Employer regardless of any notice period or period of pay in lieu of such notice required under local law (including, but not limited to statutory law, regulatory law and/or common law). Your right, if any, to acquire Shares pursuant to an Award after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law;

Form of Settlement - Performance Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or the Program or anything to the contrary in the Agreement, the Award does not provide any right for you, as a resident of Canada, to receive a cash payment and shall be paid in Shares only.

The following provisions will apply to you if you are a resident of Quebec:

Language Consent. The parties acknowledge that it is their express wish that the Agreement, as well as all documents, notices, and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English.

Consentement Relatif à la Langue Utilisée. *Les parties reconnaissent avoir exigé la rédaction en anglais de cette convention (« Agreement »), ainsi que de tous documents, avis et procédures judiciaires, exécutés, donnés ou intentés en vertu de, ou liés directement ou indirectement à, la présente convention.*

Data Privacy Notice. This provision supplements Section XV of the Agreement:

You hereby authorize the Company and the Company's representative to discuss with and obtain all relevant information from all personnel (professional or not) involved in the administration of the Plan and the Program. You further authorize the Company, your Employer and Merrill Lynch Bank & Trust Co., FSB (or any other stock plan service provider) to disclose and discuss your participation in the Plan with their advisors. You also authorize the Company and your Employer to record such information and keep it in your file.

NOTIFICATIONS

Securities Law Information. You are permitted to sell Shares acquired through the Plan through the designated broker appointed under the Plan, if any, provided that the resale of such Shares takes place outside of Canada through the facilities of a stock exchange on which the Shares are listed (*e.g.*, the Nasdaq Global Select Market).

Foreign Asset/Account Reporting Information. Specified foreign property, including Shares, stock options and other rights to receive Shares (*e.g.*, Performance Units) of a non-Canadian company held by a Canadian resident employee generally must be reported annually on a Form T1135 (Foreign Income Verification Statement) if the total cost of the employee's specified foreign property exceeds C$100,000 at any time during the year. Thus, such stock options and Performance Units must be reported – generally at nil cost – if the C$100,000 cost threshold is exceeded because other specified foreign property is held by the employee. When Shares are acquired, their cost

generally is the adjusted cost base ("ACB") of the Shares. The ACB ordinarily would equal the fair market value of the Shares at the time of acquisition, but if the employee owns other shares of the same company, this ACB may have to be averaged with the ACB of the other shares.

CHINA

TERMS AND CONDITIONS

The following terms apply only to individuals who are subject to exchange control restrictions in the People's Republic of China (the "PRC"), as determined by the Company in its sole discretion:

Vesting of the Performance Units. Notwithstanding anything to the contrary in Article 7.1 of the Program, if your employment with the Company or an Affiliate terminates at any time during the Performance Period, you shall forfeit all Performance Units.

Sale Requirement. Notwithstanding anything to the contrary in the Agreement, due to exchange control laws in the PRC, you agree that the Company reserves the right to require the immediate sale of any Shares acquired upon settlement of the Performance Units. You understand and agree that any such immediate sale of Shares will occur as soon as is practical following settlement of the Performance Units. Alternatively, if the Shares are not immediately sold upon settlement of the Performance Units, the Company will require the sale of any Shares you may then hold within six (6) months (or such other period as may be required under applicable legal or exchange control requirements) following the termination of your employment with the Company, including its Affiliates.

You agree that the Company is authorized to instruct Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company to assist with the sale of the Shares on your behalf pursuant to this authorization, and you expressly authorize such broker to complete the sale of such Shares. You also agree to sign any agreements, forms and/or consents that may be reasonably requested by the Company (or the Company's designated broker) to effectuate the sale of the Shares (including, without limitation, as to the transfers of the proceeds and other exchange control matters noted below) and to otherwise cooperate with the Company with respect to such matters, provided that you shall not be permitted to exercise any influence over how, when or whether the sales occur. Upon the sale of the Shares, you will receive the cash proceeds from the sale, less any applicable Tax Obligations, brokerage fees or commissions, in accordance with applicable exchange control laws and regulations.

You acknowledge that Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company is under no obligation to arrange for the sale of the Shares at any particular price. Due to fluctuations in the Share price and/or applicable exchange rates between the settlement date and (if later) the date on which the Shares are sold, the amount of proceeds ultimately distributed to you may be more or less than the market value of the Shares on the settlement date (which is the amount relevant to determining your liability for Tax Obligations). You understand and agree that the Company is not responsible for the amount of any loss that you may incur and

that the Company assumes no liability for any fluctuations in the Share price and/or any applicable exchange rate.

Designated Broker Account. If Shares issued upon the settlement of the Performance Units are not immediately sold, you acknowledge that you are required to maintain the Shares in an account with Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company until the Shares are sold through such Company-designated broker.

Exchange Control Requirements. You understand and agree that, pursuant to local exchange control requirements, you will be required to repatriate the cash proceeds from the sale of the Shares issued upon settlement of the Performance Units and from the receipt of any Dividends or Dividend Equivalents to China. You further understand that, under applicable laws, such repatriation of your cash proceeds will need to be effectuated through a special exchange control account established by the Company or any Affiliate, including your Employer, and you hereby consent and agree that any proceeds may be transferred to such special account prior to being delivered to you. You also understand that the Company will deliver the proceeds to you as soon as possible, but that there may be delays in distributing the funds to you due to exchange control requirements in China. Proceeds may be paid to you in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to you in U.S. dollars, you will be required to set up a U.S. dollar bank account in China so that the proceeds may be deposited into this account. If the proceeds are paid to you in local currency, the Company is under no obligation to secure any particular currency conversion rate and the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in China.

COLOMBIA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section IX of the Agreement:

You acknowledge that pursuant to Article 15 of Law 50/1990 (Article 128 of the Colombian Labor Code), the Plan, the Program and related benefits do not constitute a component of "salary" for any purpose. Therefore, they are considered to be of an extraordinary nature and will not be included and/or considered for purposes of calculating any and all labor benefits, such as legal/fringe benefits, vacations, indemnities and/or any other labor-related amounts which may be payable.

NOTIFICATIONS

Securities Law Information. The Shares are not and will not be registered with the Colombian registry of publicly traded securities (*Registro Nacional de Valores y Emisores*) and therefore the Shares may not be offered to the public in Colombia. Nothing in this document should be construed as the making of a public offer of securities in Colombia.

Exchange Control Information. Investment in assets located abroad (such as Shares acquired under the Plan and the Program) does not require prior approval from the Central Bank (Banco de la República). Nonetheless, such investments are subject to registration before the Central Bank as foreign investments held abroad, regardless of value. In addition, you must file an annual informative return with the local tax authority detailing assets you hold abroad, which must include the Shares acquired at vesting (every year as long as you keep them).

Any payments for your investment originating in Colombia (and the liquidation of such investments) must be transferred through the Colombian foreign exchange market (*e.g.*, local banks), which includes the obligation to correctly complete and file the appropriate foreign exchange form (*declaración de cambio*).

CROATIA

NOTIFICATIONS

Exchange Control Information. Croatian residents may be required to report any foreign investments (including Shares acquired under the Plan and the Program) to the Croatian National Bank for statistical purposes. You should be aware that exchange control regulations in Croatia are subject to frequent change and you are solely responsible for ensuring your continued compliance with current Croatian exchange control laws.

CZECH REPUBLIC

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Proceeds from the sale of Shares, any Dividends paid on such Shares or Dividend Equivalents may be held in a cash account abroad and you are no longer required to report the opening and maintenance of a foreign account to the Czech National Bank (the "CNB"), unless the CNB notifies you specifically that such reporting is required. Upon request of the CNB, you may need to file a notification within fifteen (15) days of the end of the calendar quarter in which you acquire Shares.

Exchange Control Information. Czech residents may be required to report the following transactions even in the absence of a request from the CNB: foreign direct investments with a value of 2,500,000 Kč or more in the aggregate or other foreign financial assets with a value of 200,000,000 Kč or more.

DENMARK

TERMS AND CONDITIONS

Danish Stock Option Act. In accepting the Performance Units, you acknowledge that you have received an Employer Statement translated into Danish, which is being provided to comply with the Danish Stock Option Act. To the extent more favorable to you and required to comply with the Stock Option Act, as amended with effect from January 1, 2019.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The requirement to report certain information to the Danish Tax Administration via Form V or K was eliminated effective January 1, 2019. However, you still must report the foreign bank/brokerage accounts and their deposits, and Shares held in a foreign bank or brokerage account in your tax return under the section on foreign affairs and income.

EGYPT

NOTIFICATIONS

Exchange Control Information. If you transfer funds into Egypt in connection with the Performance Units, you are required to transfer the funds through a registered bank in Egypt.

FINLAND

There are no country-specific provisions.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the Award, you confirm having read and understood the Plan and Agreement which were provided in the English language. You accept the terms of these documents accordingly.

Consentement Relatif à la Langue Utilisée. *En acceptant l'prix, vous confirmez avoir lu et compris le Plan et le Contrat, qui ont été communiqués en langue anglaise. Vous acceptez les termes de ces documents en connaissance de cause.*

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must

report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on a specific form together with the income tax return. Failure to comply could trigger significant penalties.

GERMANY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If your acquisition of Shares under the Plan leads to a qualified participation at any point during the calendar year, you will need to report the acquisition when you file your tax return for the relevant year. A qualified participation is attained if (i) the value of the Shares acquired exceeds €150,000 or (ii) in the unlikely event you hold Shares exceeding 10% of the Company's total Common Stock.

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank (*Bundesbank*). In case of payments in connection with securities (including proceeds realized upon the sale of Shares or the receipt of Dividends or Dividend Equivalents), the report must be made by the 5th day of the month following the month in which the payment was received and must be filed electronically. The form of report (*Allgemeines Meldeportal Statistik*) can be accessed via the Bundesbank's website (www.bundesbank.de) and is available in both German and English. You are responsible for satisfying any applicable reporting obligation.

GREECE

There are no country-specific provisions.

HONG KONG

TERMS AND CONDITIONS

Form of Settlement - Performance Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or the Program or anything to the contrary in the Agreement, the Award does not provide any right for you, as a resident of Hong Kong, to receive a cash payment and shall be paid in Shares only.

Sale of Shares. Shares received at vesting are accepted as a personal investment. In the event that Shares are issued in respect of Performance Units within six (6) months of the Grant Date, you agree that you will not offer to the public or otherwise dispose of such Shares prior to the six (6)-month anniversary of the Grant Date.

NOTIFICATIONS

SECURITIES WARNING: *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You should exercise caution in relation to the offer. If you are*

in doubt about any of the contents of the Agreement, including this Appendix, or the Plan, you should obtain independent professional advice. The Performance Units and any Shares issued in respect of the Performance Units do not constitute a public offering of securities under Hong Kong law and are available only to members of the Board and Employees. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Performance Units and any documentation related thereto are intended solely for the personal use of each member of the Board and/or Employee and may not be distributed to any other person.

HUNGARY

There are no country-specific provisions.

ICELAND

NOTIFICATIONS

Exchange Control Information. Approval by the Central Bank of Iceland is no longer required to participate in the Plan and the Program, regardless of the value of the Shares acquired under the Plan and the Program. Despite the recent relaxation of the exchange control requirements, you should consult with your personal advisor to ensure compliance with applicable exchange control regulations in Iceland as such regulations are subject to frequent change. You are responsible for ensuring compliance with all exchange control laws in Iceland.

INDIA

NOTIFICATIONS

Exchange Control Information. You understand that you must repatriate any cash Dividends paid on Shares acquired under the Plan and the Program to India or any Dividend Equivalents paid in cash, as well as any proceeds from the sale of Shares within a prescribed period of time (currently, within one hundred and eighty (180) days of receipt of cash Dividends or Dividend Equivalents, and within ninety (90) days of receipt of sale proceeds), or such other period of time as may be required under applicable regulations. You will receive a foreign inward remittance certificate ("FIRC") from the bank where you deposit the foreign currency, and you must maintain the FIRC as proof of repatriation of funds in the event that the Reserve Bank of India or your Employer requests proof of repatriation. It is your responsibility to comply with these requirements.

Foreign Asset/Account Reporting Information. You are required to declare foreign bank accounts and any foreign financial assets (including Shares held outside of India) in your annual tax return. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor in this regard.

IRELAND

TERMS AND CONDITIONS

Nature of Grant. This provision supplements Section IX of the Agreement:

In accepting the grant of Performance Units, you acknowledge that the benefits received under the Plan will not be taken into account for any redundancy or unfair dismissal claim.

ITALY

TERMS AND CONDITIONS

Nature of Grant. In accepting the grant of Performance Units, you acknowledge that (1) you have received a copy of the Plan, the Program, the Agreement and this Appendix; (2) you have reviewed the applicable documents in their entirety and fully understand the contents thereof; and (3) you accept all provisions of the Plan, the Program, the Agreement and this Appendix.

You further acknowledge that you have read and specifically and explicitly approve, without limitation, the following sections of the Agreement: Section III, Section IV, Section V, Section IX, Section IV, Section XVI, Section XX and the Data Privacy Notice for All European Economic Area ("EEA") / European Union ("EU") Jurisdictions, United Kingdom and Switzerland in this Appendix.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Italian residents who, at any time during the fiscal year, hold foreign financial assets (including cash and Shares) which may generate income taxable in Italy are required to report these assets on their annual tax returns (UNICO Form, RW Schedule) for the year during which the assets are held, or on a special form if no tax return is due. These reporting obligations will also apply to Italian residents who are the beneficial owners of foreign financial assets under Italian money laundering provisions.

Foreign Financial Assets Tax. The fair market value of any Shares held outside of Italy is subject to a foreign assets tax. The market value is considered to be the value of the Shares on the Nasdaq Global Select Market on December 31 of the applicable year in which you held the Shares (or when the Shares are acquired during the course of the year, the tax is levied in proportion to the actual days of holding over the calendar year). You should consult with your personal tax advisor about the foreign financial assets tax.

JAPAN

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You will be required to report to the Japanese tax authorities details of any assets held outside of Japan as of December 31st (including any Shares

acquired under the Plan and the Program) to the extent such assets have a total net fair market value exceeding ¥50,000,000. Such report will be due by March 15 each year. You should consult with your personal tax advisor as to whether the reporting obligation applies to you and whether you will be required to include in the report details of any Shares or cash that you hold.

JORDAN

There are no country-specific provisions.

KOREA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You are required to declare all foreign financial accounts (*e.g.* non-Korean bank accounts, brokerage accounts holding Shares, etc.) to the Korean tax authority and file a report regarding such accounts if the monthly balance of such accounts exceeds a certain threshold on any month-end date during a calendar year. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor to ensure compliance with this requirement.

LATVIA

There are no country-specific provisions.

LEBANON

NOTIFICATIONS

Securities Law Information. The Plan does not constitute the marketing or offering of securities in Lebanon pursuant to Law No. 161 (2011), the Capital Markets Law. Offerings under the Plan are being made only to eligible Employees of your Employer, the Company or an Affiliate.

LITHUANIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you are required to submit an assets declaration, you should include assets held outside of Lithuania (*e.g.*, Shares).

MEXICO

TERMS AND CONDITIONS

Acknowledgement of the Grant. In accepting the Award granted hereunder, you acknowledge that you have received a copy of the Plan and the Program, have reviewed the Plan and the Program

and the Agreement, including this Appendix, in their entirety and fully understand and accept all provisions of the Plan, the Program and the Agreement, including this Appendix. You further acknowledge that you have read and specifically and expressly approve the terms and conditions of Section IX of the Agreement, in which the following is clearly described and established:

(1) Your participation in the Plan and the Program do not constitute an acquired right.

(2) The Plan and your participation in the Plan and the Program are offered by Amgen Inc. on a wholly discretionary basis.

(3) Your participation in the Plan and the Program is voluntary.

(4) Amgen Inc. and its Affiliates are not responsible for any decrease in the value of any Shares issued with respect to the Award.

Labor Law Acknowledgement and Policy Statement. In accepting any Award granted hereunder, you expressly recognize that Amgen Inc., with registered offices at One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., is solely responsible for the administration of the Plan and that your participation in the Plan and acquisition of Shares do not constitute an employment relationship between you and Amgen Inc. since you are participating in the Plan on a wholly commercial basis and your sole employer is Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Based on the foregoing, you expressly recognize that the Plan and the Program and the benefits that you may derive from participation in the Plan and the Program do not establish any rights between you and your Employer, Amgen-Mexico, and do not form part of the employment conditions and/or benefits provided by Amgen-Mexico and any modification of the Plan or its termination shall not constitute a change or impairment of the terms and conditions of your employment.

You further understand that your participation in the Plan and the Program is as a result of a unilateral and discretionary decision of Amgen Inc.; therefore, Amgen Inc. reserves the absolute right to amend and/or discontinue your participation in the Plan at any time without any liability to you.

Finally, you hereby declare that you do not reserve to yourself any action or right to bring any claim against Amgen Inc. for any compensation or damages regarding any provision of the Plan or the benefits derived under the Plan, and you therefore grant a full and broad release to Amgen Inc., its Affiliates, stockholders, officers, agents or legal representatives with respect to any claim that may arise.

Spanish Translation

Reconocimiento del Otorgamiento. Al aceptar cualquier Otorgamiento de Acciones bajo el presente documento, usted reconoce que ha recibido una copia del Plan y del Programa, que ha revisado el Plan y el Programa, así como también el Apéndice en su totalidad, además que comprende y está de acuerdo con todas las disposiciones tanto del Plan, del Programa y del Otorgamiento, incluyendo este Apéndice. Asimismo, usted reconoce que ha leído y manifiesta específicamente y

expresamente la conformidad con los términos y condiciones establecidos en la Sección IX del Acuerdo del Otorgamiento, en los que se establece y describe claramente que:

(1) Su participación en el Plan y en el Programa de ninguna manera constituye un derecho adquirido.

(2) Su participación en Plan y en el Programa son ofrecidos por Amgen Inc. de forma completamente discrecional.

(3) Su participación en el Plan y en el Programa es voluntaria.

(4) Amgen Inc. y sus Afiliados no son responsables de ninguna disminución en el valor de las Acciones Comunes emitidas mediante el Plan.

Reconocimiento de la Ley Laboral y Declaración de Política. Al aceptar cualquier Otorgamiento bajo el presente, usted reconoce expresamente que Amgen Inc., con oficinas registradas localizadas en One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., es la única responsable de la administración del Plan y que su participación en el mismo y la adquisición de Acciones Comunes no constituyen de ninguna manera una relación laboral entre usted y Amgen Inc., debido a que su participación en el Plan es únicamente una relación comercial y que su único empleador es Amgen Mexico S.A. de C.V. (" Amgen-Mexico"). Derivado de lo anterior, usted reconoce expresamente que el Plan y el Programa y los beneficios a su favor que pudieran derivar de la participación en el mismo, no establecen ningún derecho entre usted y su empleador, Amgen – México, y no forman parte de las condiciones laborales y/o los beneficios otorgados por Amgen – México, y cualquier modificación del Plan o la terminación del mismo no constituirá un cambio o desmejora de los términos y condiciones de su trabajo.

Asimismo, usted entiende que su participación en el Plan y en el Programa es resultado de la decisión unilateral y discrecional de Amgen Inc., por lo tanto, Amgen Inc. se reserva el derecho absoluto de modificar y/o descontinuar su participación en el Plan en cualquier momento y sin ninguna responsabilidad para usted.

Finalmente, usted manifiesta que no se reserva ninguna acción o derecho que origine una demanda en contra de Amgen Inc., por cualquier compensación o daños y perjuicios, en relación con cualquier disposición del Plan o de los beneficios derivados del mismo, y en consecuencia usted exime amplia y completamente a Amgen Inc. de toda responsabilidad, como así también a sus Afiliadas, accionistas, directores, agentes o representantes legales con respecto a cualquier demanda que pudiera surgir.

NETHERLANDS

NOTIFICATIONS

Securities Law Information.

Attention! This investment falls outside AFM supervision.
No prospectus required for this activity.

NORWAY

There are no country-specific provisions.

POLAND

NOTIFICATIONS

Exchange Control Information. Polish residents holding foreign securities (including Shares) and maintaining accounts abroad must file reports with the National Bank of Poland if the aggregate value of Shares and cash held in such foreign accounts exceeds PLN 7,000,000. If required, the reports are due on a quarterly basis by the 20th day following the end of each quarter and must be filed on special forms available on the website of the National Bank of Poland. In addition, Polish residents are required to transfer funds through a bank account in Poland if the transferred amount in any single transaction exceeds a specified threshold (currently €15,000 (or PLN 15,000 if such transfer of funds is associated with the business activity of a consultant)). You must store all documents connected with any foreign exchange transactions you engage in for a period of five (5) years from the end of the year when such transactions were made. Penalties may apply for failure to comply with exchange control requirements.

PORTUGAL

TERMS AND CONDITIONS

Consent to Receive Information in English. You hereby expressly declare that you have full knowledge of the English language and have read, understood and fully accepted and agreed with the terms and conditions established in the Plan, the Program and Agreement.

Conhecimento da Lingua. *Por meio do presente, eu declaro expressamente que tem pleno conhecimento da língua inglesa e que li, compreendi e livremente aceitei e concordei com os termos e condições estabelecidas no Plano, no Programa e no Acordo.*

PUERTO RICO

There are no country-specific provisions.

ROMANIA

NOTIFICATIONS

Exchange Control Information. Any transfer of money exceeding €15,000 (whether via one transaction or several transactions that appear to be linked to each other) must be reported to the National Office for Prevention and Control of Money Laundering on specific forms by the relevant bank or financial institution. If you deposit proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents in a bank account in Romania, you may be required to provide the Romanian bank assisting with the transaction with appropriate documentation explaining the source of the income. You should consult with a legal advisor to determine whether you will be required to submit such documentation to the Romanian bank.

RUSSIA

TERMS AND CONDITIONS

Exchange Control Requirements. As the Shares are listed on a specified foreign stock exchange determined according to the Russian law "On the Securities Market," Russian residents may receive certain funds (*e.g.*, cash Dividends and sale proceeds but not Dividend Equivalents) directly into a foreign bank account held in an Organization for Economic Cooperation and Development ("OECD") country (such as the U.S.) or a Financial Action Task Force ("FATF") country without first repatriating such cash proceeds (as was previously required).

You understand and agree that, pursuant to Russian exchange control requirements, you may still be required to repatriate to Russia certain cash proceeds (*e.g.*, Dividend Equivalents) paid on Shares, unless such proceeds will be paid into and held in your brokerage account in the U.S., for example, for reinvestment purposes, or a different statutory exception applies. You should consult with your personal legal advisor in this regard.

Without limiting the generality of the foregoing, you acknowledge that the Company reserves the right, in its sole discretion, depending on developments in Russian exchange control laws and regulations, to force the immediate sale of any Shares to be issued in settlement of the Award granted hereunder. You further agree that, if applicable, the Company is authorized to instruct Merrill Lynch Bank & Trust Co., FSB (or such other broker as may be designated by the Company) to assist with the mandatory sale of such Shares (on your behalf pursuant to this authorization) and you expressly authorize Merrill Lynch Bank & Trust Co., FSB (or such other broker as may be designated by the Company) to complete the sale of such Shares. You further acknowledge that Merrill Lynch Bank & Trust Co., FSB (or such other broker as may be designated by the Company) is under no obligation to arrange for the sale of the Shares at any particular trading price. Upon the sale of Shares, you will receive the cash proceeds from the sale of such Shares, less any brokerage fees or commissions and subject to your obligations in connection with the Tax Obligations.

Securities Law Requirements. The Award granted hereunder, the Agreement, including this Appendix, the Program, the Plan and all other materials you may receive regarding your participation in the Plan and the Program or the Award granted hereunder do not constitute advertising or an offering of securities in Russia. The issuance of Shares in respect of the Award has not and will not be registered in Russia; therefore, such Shares may not be offered or placed in public circulation in Russia.

In no event will Shares acquired under the Plan and the Program be delivered to you in Russia; all Shares will be maintained on your behalf in the United States.

You are not permitted to sell any Shares acquired under the Plan and the Program directly to a Russian legal entity or resident.

Labor Law Acknowledgement. You acknowledge that if you continue to hold Shares acquired under the Plan and the Program after an involuntary termination of your employment, you will not be eligible to receive unemployment benefits in Russia.

Data Privacy Notice. The following provision supplements Section XV of the Agreement:

You understand and agree that you must complete and return a Consent to Processing of Personal Data (the "Consent") form to the Company. Further, you understand and agree that if you do not complete and return a Consent form to the Company, the Company will not be able to administer or maintain the Performance Units. Therefore, you understand that refusing to complete a Consent form or withdrawing your consent may affect your ability to participate in the Plan.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Russian residents are required to notify Russian tax authorities within one (1) month of opening, closing or changing the details of a foreign account. Russian residents also are required to report (i) the beginning and ending balances in such a foreign bank account each year and (ii) transactions related to such a foreign account during the year to the Russian tax authorities, on or before June 1 of the following year. The tax authorities can require you to provide appropriate supporting documents related to transactions in a foreign bank account. You are encouraged to contact your personal advisor before remitting your proceeds from participation in the Plan to Russia as exchange control requirements may change.

Anti-Corruption Legislation Information. Individuals holding public office in Russia, as well as their spouses and dependent children, may be prohibited from opening or maintaining a foreign brokerage or bank account and holding any securities, whether acquired directly or indirectly, in a foreign company (including Shares acquired under the Plan and the Program). You should consult with your personal legal advisor to determine whether this restriction applies to your circumstances.

SINGAPORE

TERMS AND CONDITIONS

Restriction on Sale and Transferability. You hereby agree that any Shares acquired pursuant to the Performance Units will not be offered for sale in Singapore prior to the six (6)-month anniversary of the Grant Date, unless such sale or offer is made pursuant to one or more exemptions under Part XIII Division 1 Subdivision (4) (other than section 280) of the Securities and Futures Act (Chap. 289, 2006 Ed.) ("SFA"), or pursuant to, and in accordance with the conditions of, any other applicable provisions of the SFA.

NOTIFICATIONS

Securities Law Information. The grant of the Performance Units is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA, on which basis it is exempt from the prospectus and registration requirements under the SFA, and is not made with a view to the Performance Units being subsequently offered for sale to any other party. The Plan has not been, and will not be, lodged or registered as a prospectus with the Monetary Authority of Singapore.

Chief Executive Officer and Director Notification Requirement. The Chief Executive Officer ("CEO") and the directors (including alternate, substitute, associate and shadow directors) of a Singapore Affiliate are subject to certain notification requirements under the Singapore Companies Act. The CEO and directors of a Singapore Affiliate must notify the Singapore Affiliate in writing of an interest (*e.g.*, Performance Units, Shares, etc.) in the Company or any related company within two (2) business days of (i) its acquisition or disposal, (ii) any change in a previously disclosed interest (*e.g.,* when the Shares are sold), or (iii) becoming the CEO or a director.

SLOVAK REPUBLIC

There are no country-specific provisions.

SLOVENIA

There are no country-specific provisions.

SPAIN

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section IX of the Agreement:

By accepting the Award granted hereunder, you consent to participation in the Plan and the Program and acknowledge that you have received a copy of the Plan and the Program.

You understand that the Company has unilaterally, gratuitously and in its sole discretion decided to grant the Award under the Plan and the Program to individuals who may be members of the Board or Employees of the Company or its Affiliates throughout the world. The decision is a limited

decision that is entered into upon the express assumption and condition that the Awards granted will not economically or otherwise bind the Company or any of its Affiliates on an ongoing basis, other than as expressly set forth in the applicable Agreement, including this Appendix. Consequently, you understand that the Award granted hereunder is given on the assumption and condition that it shall not become a part of any employment contract (either with the Company or any of its Affiliates) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Further, you understand and freely accept that there is no guarantee that any benefit whatsoever shall arise from any gratuitous and discretionary grant of the Award since the future value of the Award and any Shares that may be issued in respect of such Award is unknown and unpredictable. In addition, you understand that the Award granted hereunder would not be made but for the assumptions and conditions referred to above; thus, you understand, acknowledge and freely accept that, should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then the grant of the Award or right to the Award shall be null and void.

Further, the vesting of the Performance Units is expressly conditioned your continued and active rendering of service, such that if your employment terminates for any reason whatsoever, the Performance Units may cease vesting immediately, in whole or in part, effective on the date of your termination of employment (unless otherwise specifically provided in Section I of the Agreement). This will be the case, for example, even if (1) you are considered to be unfairly dismissed without good cause (*i.e.*, subject to a "despido improcedente"); (2) you are dismissed for disciplinary or objective reasons or due to a collective dismissal; (3) you terminate service due to a change of work location, duties or any other employment or contractual condition; (4) you terminate service due to a unilateral breach of contract by the Company or an Affiliate; or (5) your employment terminates for any other reason whatsoever. Consequently, upon termination of your employment for any of the above reasons, you may automatically lose any rights to Performance Units that were not vested on the date of your termination of employment, as described in the Plan and the Agreement.

You acknowledge that you have read and specifically accept the conditions referred to in Section I of the Agreement.

NOTIFICATIONS

Securities Law Information. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Agreement (including this Appendix) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

Exchange Control Information. If you acquire Shares under the Plan, you must declare the acquisition to the *Direccion General de Comercio e Inversiones* ("DGCI"). If you acquire the Shares through the use of a Spanish financial institution, that institution will automatically make the declaration to the DGCI for you; otherwise, you will be required to make the declaration by filing a D-6 form. You must declare ownership of any Shares with the DGCI each January while the Shares are owned and must also report, in January, any sale of Shares that occurred in the

previous year for which the report is being made, unless the sale proceeds exceed the applicable threshold, in which case the report is due within one (1) month of the sale.

Foreign Asset/Account Reporting Information. You are required to declare electronically to the Bank of Spain any securities accounts (including brokerage accounts held abroad), as well as the Shares held in such accounts if the value of the transactions during the prior tax year or the balances in such accounts as of December 31 of the prior tax year exceed €1,000,000.

To the extent that you hold Shares and/or have bank accounts outside of Spain with a value in excess of €50,000 (for each type of asset) as of December 31 each year, you will be required to report information on such assets in your tax return (tax form 720) for such year. After such Shares and/or accounts are initially reported, the reporting obligation will apply for subsequent years only if the value of any previously-reported Shares or accounts increases by more than €20,000 or if you sell or otherwise dispose of previously-reported Shares or accounts. If the value of such Shares and/or accounts as of December 31 does not exceed €50,000, a summarized form of declaration may be presented.

SWEDEN

There are no country-specific provisions.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. The Awards are not intended to be publicly offered in or from Switzerland. Because this is a private offering in Switzerland, the Performance Units are not subject to registration in Switzerland. Neither this document nor any other materials relating to the Performance Units (i) constitutes a prospectus as such term is understood pursuant to article 652a of the Swiss Code of Obligations, (ii) may be publicly distributed nor otherwise made publicly available in Switzerland or (iii) have been or will be filed with, approved or supervised by any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority ("FINMA").

TAIWAN

NOTIFICATIONS

Exchange Control Information. You may acquire and remit foreign currency (including proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents) up to US$5,000,000 per year without justification. If the transaction amount is TWD500,000 or more in a single transaction, you must submit a Foreign Exchange Transaction Form. If the transaction amount is US$500,000 or more in a single transaction, you must also provide supporting documentation to the satisfaction of the remitting bank.

THAILAND

NOTIFICATIONS

Exchange Control Information. If proceeds from the sale of Shares or the receipt of any Dividends or Dividend Equivalents exceed US$50,000, you must (i) immediately repatriate such funds to Thailand and (ii) report the inward remittance to the Bank of Thailand on a Foreign Exchange Transaction Form. In addition, within three hundred and sixty (360) days of repatriation, you must either convert any funds repatriated to Thailand to Thai Baht or deposit the funds in a foreign exchange account with a Thai commercial bank. Any such commercial bank must be duly authorized by the Bank of Thailand to engage in the purchase, exchange and withdrawal of foreign currency.

TURKEY

NOTIFICATIONS

Securities Law Information. The Performance Units are made available only to employees of the Company and its Affiliates, and the offer of participation in the Plan is a private offering. The grant of the Award and the issuance of Shares at vesting takes place outside of Turkey.

Exchange Control Information. Any activity related to investments in foreign securities (*e.g.*, the sale of Shares under the Plan, the receipt of cash Dividends or Dividend Equivalents) must be conducted through a bank or financial intermediary institution licensed by the Turkish Capital Markets Board and should be reported to the Turkish Capital Markets Board by the bank or intermediary assisting with the transaction. You should contact a personal legal advisor for further information regarding these requirements.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Information. Performance Units under the Plan are available only to Participants under the Program and are for the purpose of providing equity incentives. The Plan, the Program and the Agreement are intended for distribution only to such Participants and must not be delivered to, or relied on by, any other person. You should conduct your own due diligence on the Performance Units offered pursuant to this Agreement. If you do not understand the contents of the Plan and/or the Agreement, you should consult an authorized financial adviser. The Emirates Securities and Commodities Authority and the Dubai Financial Services Authority have no responsibility for reviewing or verifying any documents in connection with the Plan. Further, the Ministry of the Economy and the Dubai Department of Economic Development have not approved the Plan or the Agreement nor taken steps to verify the information set out therein, and have no responsibility for such documents.

UNITED KINGDOM

TERMS AND CONDITIONS

Tax Withholding. This provision supplements Section V of the Agreement:

Without limitation to Section V of the Agreement, you agree that you are liable for all Tax Obligations and hereby covenant to pay all such Tax Obligations as and when requested by the Company or your Employer or by Her Majesty's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and your Employer against any taxes that they are required to pay or withhold or have paid or will pay to HMRC (or any other tax authority or any other relevant authority) on your behalf.

Notwithstanding the foregoing, if you are an executive officer or director (as within the meaning of Section 13(k) of the Exchange Act, as amended, from time to time), you understand that you may not be able to indemnify the Company or your Employer for the amount of income tax not collected from or paid by you, as it may be considered a loan. In the event that you are an executive officer or director and income tax is not collected from you within ninety (90) days after the end of the tax year in which the Taxable Event occurs, the amount of any uncollected income tax may constitute an additional benefit to you on which additional income tax and national insurance contributions ("NICs") may be payable. You acknowledge that you are responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing your Employer for the value of any NICs due on this additional benefit, which the Company or your Employer may recover from you by any of the means set forth in Section V of the Agreement.

If the maximum applicable withholding rate is used, any over-withheld amount may be credited to you by the Company or your Employer (with no entitlement to the Common Stock equivalent) or if not so credited, you may seek a refund from the local tax authorities.

Joint Election. If you are a resident of the United Kingdom between the Grant Date and the vesting of the Units, as a condition of the Award, you agree to accept any liability for secondary Class 1 National Insurance Contributions (the "Employer NICs") which may be payable by the Company or your Employer with respect to the earning and/or payment of the Performance Units and issuance of Shares in respect of the Performance Units, the assignment or release of the Performance Units for consideration or the receipt of any other benefit in connection with the Performance Units.

Without limitation to the foregoing, you agree to make an election (the "Election"), in the form specified and/or approved for such election by HMRC, that the liability for your Employer NICs payments on any such gains shall be transferred to you to the fullest extent permitted by law. You further agree to execute such other elections as may be required between you and any successor to the Company and/or your Employer. You hereby authorize the Company and your Employer to withhold such Employer NICs by any of the means set forth in Section V of the Agreement.

Failure by you to enter into an Election, withdrawal of approval of the Election by HMRC or a joint revocation of the Election by you and the Company or your Employer, as applicable, shall be grounds for the forfeiture and cancellation of the Performance Units, without any liability to the Company or your Employer.

UNITED STATES

TERMS AND CONDITIONS

Nature of Grant. The following provision replaces Section IX(j) of the Award Agreement:

(j) in the event of termination of your employment (whether or not in breach of local labor laws), your right to receive Performance Units and receive Shares under the Plan and the Program, if any, will terminate effective as of the date that you are no longer actively employed; *provided*, *however*, that such right will be extended by any notice period mandated by law (*e.g.*, the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave (as applicable), unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave. In such event, payment of the Performance Units shall be made in accordance with Section IV; *provided*, *further*, *however*, that notwithstanding the effect of any such extension, subject to Section 4.2 of the Program, in no event will the Performance Units be paid later than the 90th day following the last day of the Performance Period.

Form of Award Notice

[*The information set forth in this Award Notice will be contained on the related pages on Merrill Lynch Benefits Website (or the website of any successor company to Merrill Lynch Bank & Trust Co., FSB). This Award Notice shall be replaced by the equivalent pages on such website. References to Award Notice in this Agreement shall then refer to the equivalent pages on such website.*]

This notice of Award (the "Award Notice") sets forth certain details relating to the grant by the Company to you of the Award identified below, pursuant to the Plan. The terms of this Award Notice are incorporated into the Agreement that accompanies this Award Notice and made part of the Agreement. Capitalized terms used in this Award Notice that are not otherwise defined in this Award Notice have the meanings given to such terms in the Agreement.

Employee:	
Employee ID:	
Address:	
Award Type:	
Grant ID:	
Plan:	Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time
Program	Amgen Inc. 2009 Performance Award Program, as amended and/or restated from time to time
Grant Date:	
Number of Shares:	
Number of Performance Units:	
Performance Period:	The Performance Period beginning on and ending on .
Resolutions:	The Resolutions of the Compensation and Management Development Committee of the Board of Directors of Amgen Inc. establishing the performance goals and Performance Period applicable to this Award.
Vesting Date:	Means the vesting date indicated in the Vesting Schedule
Vesting Schedule:	Means the schedule of vesting set forth under Vesting Details
Vesting Details:	Means the presentation (tabular or otherwise) of the Vesting Date and the quantity of Shares vesting.

IMPORTANT NOTICE REGARDING ACCEPTANCE OF THE AWARD AND THE REQUIREMENT TO OPEN A BROKERAGE ACCOUNT [1]**:**

***RESIDENTS OF THE U.S. AND PUERTO RICO*:** Please read this Award Notice, the Plan and the Agreement (collectively, the "Grant Documents") carefully. If you, as a resident of the U.S. or Puerto Rico, do **not** wish to receive this Award and/or you do **not** consent and agree to the terms and conditions on which this Award is offered, as set forth in the Grant Documents, then you must

reject the Award by contacting the Merrill Lynch call center (800) 97AMGEN (800-972-6436) within the U.S., Puerto Rico and Canada or +1 (609) 818-8910 from all other countries (Merrill Lynch will accept the charges for your call) no later than the forty-fifth calendar day following the day on which this Award Notice is made available to you, in which case the Award will be canceled. For the purpose of determining the forty-five calendar days, Day 1 will be the day **immediately** following the day on which this Award Notice is made available to you. Your failure to notify the Company of your rejection of the Award within this specified period will constitute your acceptance of the Award and your agreement with all terms and conditions of the Award, as set forth in the Grant Documents. If you agree to the terms and conditions of your grant and you desire to accept it, then no further action is needed on your part to accept the grant. However, you must still open a brokerage account as directed by the Company, by 1:00 pm Pacific Time on or before the date that is 11 months after the date of grant. This step is necessary to process transactions related to your equity grant. **If you do not open a brokerage account by this deadline, your grant will be canceled**.

AMGEN INC. 2009 DIRECTOR EQUITY INCENTIVE PROGRAM
(Effective December 11, 2019 (the "Effective Date"))

As Amended and Restated December 11, 2019

ARTICLE I

PURPOSE

The purpose of this document is to set forth the general terms and conditions of the Amgen Inc. 2009 Director Equity Incentive Program (the "Program") established by the Board of Directors of Amgen Inc. (the "Company") including, with respect to certain awards granted to Non-Employee Directors of the Company hereunder, pursuant to the Company's 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "2009 Plan"). The Program is intended to provide a means to reinforce and motivate the Non-Employee Directors of the Company to focus on sustained long-term performance and value creation by awarding each such Non-Employee Director (alternatively, each an "Eligible Director") stock or stock-based awards, subject to the restrictions and other provisions of the Program and, as applicable, the 2009 Plan.

ARTICLE II

DEFINITIONS

Unless otherwise defined herein, capitalized terms used herein shall have the meanings assigned to such terms in the 2009 Plan.

"Alternate Payee" shall mean the spouse, former spouse or child of an Eligible Director.

"Award" shall mean a Restricted Stock Unit granted to an Eligible Director pursuant to the Program.

"Board" shall mean the Board of Directors of the Company.

"Cash Compensation Payment Date" shall mean each date that the Company makes an Eligible Periodic Cash Compensation payment to Eligible Directors who have not elected to defer such compensation pursuant to Section 3.2 of this Program or the Deferred Compensation Program.

"Code" shall mean the Internal Revenue Code of 1986, as amended from time to time, together with the regulations and official guidance promulgated thereunder.

"Common Stock" shall mean the common stock, par value $0.0001 per share, of the Company.

"Deferred Compensation Plan" shall mean the Amgen Nonqualified Deferred Compensation Plan, as amended and/or restated from time to time.

"Eligible Director" shall mean a member of the Board who is not an employee of the Company or any Affiliate.

"Eligible Periodic Cash Compensation" shall mean the Board retainer, committee meeting fees and/or, if applicable, chair, lead independent director or other fees payable periodically to an Eligible Director by the Company for services performed as a member of the Board in respect of the applicable period to which such retainer and/or fees relate, in each case, with respect to which no valid deferral election has been made under the Deferred Compensation Plan.

"Final Eligible Periodic Cash Compensation" shall mean the last Eligible Periodic Cash Compensation amount earned by a Participating Eligible Director (but not paid by the Company) prior to the date that such director retires from, or otherwise ceases to serve as a member of, the Board.

"Participating Eligible Director" shall mean an Eligible Director who, pursuant to Sections 3.2(e) or (f), has elected to receive deferred Restricted Stock Units in lieu of all or a portion of his or her Eligible Periodic Cash Compensation for a given calendar year or any remainder thereof, as applicable.

"QDRO" shall mean a domestic relations order as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended from time to time, or the rules thereunder.

"Restricted Stock Unit" shall mean a restricted right to receive, on the applicable settlement date, a share of Common Stock or an amount in cash equal to the Fair Market Value of a share of Common Stock as of such settlement date, granted pursuant to Article III. For the avoidance of doubt, Restricted Stock Units may, but need not be, granted pursuant to the 2009 Plan.

ARTICLE III

RESTRICTED STOCK UNITS

3.1 (a) Annual Grants. On the date which is two business days after the release of the Company's quarterly earnings for the first fiscal quarter of each year after the Effective Date (the "Annual Grant Date"), each person who is at that time an Eligible Director shall automatically be granted, without further action by the Company, the Board, or the Company's stockholders, Restricted Stock Units to acquire a number of shares of Common Stock (rounded down to the nearest whole number) equal to the quotient obtained by dividing (x) $200,000, by (y) the closing market price of a share of Common Stock on the date of grant (rounded to two decimal places) (such Restricted Stock Units, the "Annual RSU Award"). Notwithstanding the foregoing, each person who becomes an Eligible Director following the Annual Grant Date with respect to any year (such year, the "Initial Year") shall automatically be granted, on the date which is two business days after the release of the Company's quarterly or annual earnings for the Initial Year next following such person becoming an Eligible Director, and without further action by the Company, the Board, or the Company's stockholders, a prorated Annual RSU Award (rounded down to the nearest whole number) for the Initial Year based on the number of months during which such person would serve as an Eligible Director during the Initial Year if the Eligible Director were to serve through the end of the Initial Year.

(b) Quarterly Grants in Lieu of Cash Compensation. A Participating Eligible Director shall automatically be granted, on the date which is two business days after the release of the Company's quarterly earnings for the fiscal quarter most recently ending after the occurrence of each applicable Cash Compensation Payment Date (each such date of grant, a "Quarterly Grant Date"), Restricted Stock Unit awards as follows: (i) with respect to each such Eligible Periodic Cash Compensation amount other than Final Eligible Periodic Cash Compensation, deferred Restricted Stock Units to acquire a number of shares of Common Stock (rounded to four decimal places) equal to the quotient obtained by dividing (x) the dollar value of such Eligible Periodic Cash Compensation amount by (y) the closing market price of a share of Common Stock on such Quarterly Grant Date (rounded to two decimal places), and (ii) with respect to Final Eligible Periodic Cash Compensation, a number of cash-settled deferred Restricted Stock Units equal to the quotient obtained by dividing (x) the dollar value of such Final Eligible Periodic Cash Compensation by (y) the closing market price of a share of Common Stock on such Quarterly Grant Date (rounded to two decimal places) (the "Cash-Settled RSUs" and, together with the Restricted Stock Units described in (i), the "Quarterly RSU Awards"). Each Cash-Settled RSU granted pursuant to Section 3.1(b)(ii) shall represent a restricted right to receive, on the applicable Deferred Payment Date (as defined in Section 3.2(d) below), an amount in cash per Restricted Stock Unit equal to the Fair Market Value of a share of Common Stock as of such Deferred Payment Date. For the avoidance of doubt, no portion of the Board retainer, committee meeting fees or, if applicable, chair, lead independent director or other fees payable to an Eligible Director by the Company for services performed as a member of the Board with respect to which a valid deferral election has been made by such Eligible Director pursuant to the Deferred Compensation Plan shall constitute "Eligible Periodic Cash Compensation" hereunder. In the event of any conflict between the deferral elections made by an Eligible Director

pursuant to the Deferred Compensation Plan and this Program, the deferral election made under the Deferred Compensation Plan shall control.

Any fractional Restricted Stock Units that remain outstanding as of the Deferred Payment Date shall represent a restricted right to receive, on the applicable Deferred Payment Date, an amount in cash per fractional Restricted Stock Unit equal to the corresponding fraction of the Fair Market Value of a share of Common Stock as of such Deferred Payment Date, and any such fractional Restricted Stock Units shall be settled in cash.

3.2 Terms of Restricted Stock Units.

(a) Restricted Stock Units, other than Cash-Settled RSUs, shall constitute Restricted Stock Units under Section 9.5 of the 2009 Plan. Cash-Settled RSUs granted pursuant to Section 3.1(b)(ii) hereof shall not be granted under, or subject to the terms of, the 2009 Plan. Each Restricted Stock Unit granted pursuant to this Program shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The provisions of separate Restricted Stock Units need not be identical, but each Restricted Stock Unit shall include (through incorporation of provisions hereof by reference in the Restricted Stock Unit agreement or otherwise) the substance of each of the following provisions as set forth in this Section 3.2 and Section 9.5 of the 2009 Plan.

(b) Each grant of Restricted Stock Units made to an Eligible Director shall be fully vested as of the date of grant of such Restricted Stock Units (such date, "Vesting Date").

(c) A holder's vested Restricted Stock Units shall be paid by the Company in shares of Common Stock (on a one-to-one basis) on, or as soon as practicable after, the Vesting Date (the " Payment Date"), but in any event by the fifteenth day of the third month following the end of the tax year in which such Restricted Stock Units vest, unless the payment of such Restricted Stock Units has been properly deferred pursuant to this Section 3.2.

(d) With respect to an Eligible Director's Annual RSU Award, such Eligible Director may irrevocably elect in writing by December 31 of the year preceding the grant of such Annual RSU Award to defer the payment of such Annual RSU Award, and any dividends paid thereon, to another date under one of the following options (a "Deferred Payment Date"), which payment form or forms shall be specified at the time of the deferral election: (i) full payment of the vested Restricted Stock Units in January of a year specified by the Eligible Director which shall be no earlier than the third calendar year following the calendar year in which the date of grant occurs and no later than the tenth calendar year following such year; (ii) full payment of the vested Restricted Stock Units in January of the calendar year following the year in which the Eligible Director with respect to whom the Restricted Stock Units were granted ceases to be an Eligible Director and ceases to otherwise provide services to the Company in a manner that constitutes a "separation from service" (within the meaning of Code Section 409A) for any reason; (iii) payment of the vested Restricted Stock Units in five substantially equal annual installments, commencing in January of the calendar year following the year in which the Eligible Director with respect to whom the Restricted Stock Units were granted ceases to be an Eligible Director and ceases to otherwise provide services to the Company in a manner that constitutes a "separation

from service" (within the meaning of Code Section 409A) for any reason; or (iv) payment of the vested Restricted Stock Units in ten substantially equal annual installments, commencing in January of the calendar year following the year in which the Eligible Director with respect to whom the Restricted Stock Units were granted ceases to be an Eligible Director and ceases to otherwise provide services to the Company in a manner that constitutes a "separation from service" (within the meaning of Code Section 409A) for any reason.

(e) On or before December 31 of any year, an Eligible Director may irrevocably elect in writing to receive deferred Restricted Stock Units in lieu of all or a portion of his or her Eligible Periodic Cash Compensation earned during the year following the year of such election. In the event of such election, such Eligible Director shall be granted Quarterly RSU Awards pursuant to Section 3.1(b) hereof and, at the time of any such election, such Eligible Director shall further irrevocably elect in writing to defer the payment of such Quarterly RSU Award, and any dividends paid thereon, to a Deferred Payment Date in accordance with Section 3.2(d) hereof.

(f) Notwithstanding anything in Sections 3.2(d) or 3.2(e) to the contrary, any person who shall become an Eligible Director during any year, and who was not an Eligible Director on the preceding December 31, may elect within thirty (30) days after such person first becomes an Eligible Director to (i) defer payment of the portion of such Eligible Director's Annual RSU Award earned during the remainder of such year and any dividends paid thereon, to a Deferred Payment Date, and (ii) receive Restricted Stock Units in lieu of all or a portion of his or her Eligible Periodic Cash Compensation earned during the remainder of such year and granted as deferred Quarterly RSU Awards pursuant to Section 3.1(b) hereof, the payment of which (and any dividends paid thereon) shall be deferred to a Deferred Payment Date.

(g) In each case, any shares of Common Stock issued in respect of a Restricted Stock Unit shall be deemed to be issued in consideration for future services to be rendered or past services actually rendered to the Company or for its benefit, by the Eligible Director, which the Board deems to have a value not less than the par value of a share of Common Stock.

3.3 Dividend Equivalents.

(a) Crediting and Payment of Dividend Equivalents. Subject to this Section 3.3, Dividend Equivalents shall be credited on each Restricted Stock Unit (including fractional Restricted Stock Units) granted to an Eligible Director under the Program in the manner set forth in the remainder of this Section 3.3. If the Company declares one or more dividends or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the date of grant through and including the day immediately preceding the day the shares of Common Stock and/or the cash amount subject to the Restricted Stock Units are issued or paid to the Eligible Director, whether in the form of cash, Common Stock or other property, then on the date such Dividend is paid to the Company's stockholders the Eligible Director shall be credited with an amount equal to the amount or fair market value of such Dividend which would have been payable to the Eligible Director if the Eligible Director held a number of shares of Common Stock (including fractional shares) equal to the number of the

Eligible Director's Restricted Stock Units (including fractional Restricted Stock Units) as of the record date for such Dividend. Any such Dividend Equivalents, including Dividend Equivalents with respect to Cash-Settled RSUs, shall be credited and deemed reinvested in the Common Stock as of the Dividend payment date. Dividend Equivalents with respect to Quarterly RSU Awards other than Cash-Settled RSUs shall be payable in full shares of Common Stock, unless the Board determines, at any time prior to payment and in its discretion, that they shall be payable in cash, and Dividend Equivalents with respect to Cash-Settled RSUs granted pursuant to Section 3.1(b)(ii) hereof shall be payable in cash. Dividend Equivalents payable with respect to fractional shares of Common Stock shall be paid in cash.

(b) Treatment of Dividend Equivalents. Except as otherwise expressly provided in this Section 3.3, any Dividend Equivalents credited to an Eligible Director shall be subject to all of the provisions of the Program and the Restricted Stock Unit Agreement which apply to the Restricted Stock Units with respect to which they have been credited and shall be payable, if at all, at the time and to the extent that the underlying Restricted Stock Unit becomes payable.

ARTICLE IV

MISCELLANEOUS

4.1 Administration of the Program. The Program shall be administered by the Board and, to the extent permitted by applicable law or the rules of any Securities Exchange, the Board may delegate to a committee of one or more members of the Board the authority to administer the Program.

4.2 Application of 2009 Plan. The Program is subject to all of the provisions of the 2009 Plan, including Section 13.2 thereof (relating to adjustments upon changes in the Common Stock), and its provisions are hereby made a part of the Program, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the 2009 Plan. In the event of any conflict between the provisions of this Program and those of the 2009 Plan, the provisions of the 2009 Plan shall control.

4.3 Amendment and Termination. Notwithstanding anything herein to the contrary, the Board may, at any time, terminate, modify or suspend the Program; *provided, however,* that, without the prior consent of the Eligible Directors affected, no such action may adversely affect any rights or obligations with respect to any Awards theretofore earned but unpaid, whether or not the amounts of such Awards have been computed and whether or not such Awards are then payable. Any amendment of this Program may, in the sole discretion of the Board, be accomplished in a manner calculated to cause such amendment not to constitute an "extension," "renewal" or "modification" (each within the meaning of Code Section 409A) of any Restricted Stock Units that would cause such Restricted Stock Units to be considered "nonqualified deferred compensation" (within the meaning of Code Section 409A).

4.4 No Contract for Employment. Nothing contained in the Program or in any document related to the Program or to any Award shall confer upon any Eligible Director any right to continue as a director or in the service of the Company or an Affiliate or constitute any contract or agreement of service for a specific term or interfere in any way with the right of the Company or an Affiliate to reduce such person's compensation or to remove, disqualify or otherwise terminate the service of such person, with or without cause.

4.5 Nontransferability.

(a) No benefit payable under, or interest in, this Program shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, debts, contracts, liabilities or torts of any Eligible Director or beneficiary; provided, however, that, nothing in this Section 4.5 shall prevent transfer (i) by will, (ii) by applicable laws of descent and distribution or (iii) to an Alternate Payee to the extent that a QDRO so provides.

(b) The transfer to an Alternate Payee of an Award pursuant to a QDRO shall not be treated as having caused a new grant. If an Award is so transferred, the Alternate Payee generally has the same rights as the Eligible Director under the terms of the Program; *provided however*, that (i) the Award shall be subject to the same terms and conditions, including the vesting terms and termination provisions, as if the Award were still held by the Eligible Director, and (ii) such Alternate Payee may not transfer an Award, except transfer (1) by will or (2) by applicable laws of descent and distribution. In the event of the Company Stock Administrator's receipt of a domestic relations order or other notice of adverse claim by an Alternate Payee of an Eligible Director of an Award, transfer of the proceeds of such Award, whether in the form of cash, stock or other property, may be suspended. Such proceeds shall thereafter be transferred pursuant to the terms of a QDRO or other agreement between the Eligible Director and Alternate Payee.

4.6 Nature of Program. No Eligible Director, beneficiary or other person shall have any right, title or interest in any fund or in any specific asset of the Company or any Affiliate by reason of any award hereunder. There shall be no funding of any benefits which may become payable hereunder. Nothing contained in this Program (or in any document related thereto), nor the creation or adoption of this Program, nor any action taken pursuant to the provisions of this Program shall create, or be construed to create, a trust of any kind or a fiduciary relationship between the Company or an Affiliate and any Eligible Director, beneficiary or other person. To the extent that an Eligible Director, beneficiary or other person acquires a right to receive payment with respect to an award hereunder, such right shall be no greater than the right of any unsecured general creditor of the Company or other employing entity, as applicable. All amounts payable under this Program shall be paid from the general assets of the Company or employing entity, as applicable, and no special or separate fund or deposit shall be established and no segregation of assets shall be made to assure payment of such amounts. Nothing in this Program shall be deemed to give any person any right to participate in this Program except in accordance herewith.

4.7 Governing Law. This Program shall be construed in accordance with the laws of the State of Delaware, without giving effect to the principles of conflicts of law thereof.

4.8 Code Section 409A. To the extent that this Program constitutes a "non-qualified deferred compensation plan" within the meaning of Code Section 409A and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, this Program shall be interpreted and operated in accordance with Code Section 409A. Notwithstanding any provision of this Program to the contrary, in the event that following the grant of any Restricted Stock Units, the Board determines that any Award does or may violate any of the requirements of Code Section 409A, the Board may adopt such amendments to the Program and any affected Award or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Board determines are necessary or appropriate to (a) exempt the Program and any such Award from the application of Code Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (b) comply with the requirements of Code Section 409A; *provided*, *however*, that this paragraph shall not create an obligation on the part of the Board to adopt any such amendment, policy or procedure or take any such other action.

RESTRICTED STOCK UNIT AGREEMENT
(Director Equity Incentive Program)

_____, Amgen Inc. Grantee:

On this __ day of _____ (the "Grant Date"), Amgen Inc., a Delaware corporation (the "Company"), pursuant to its Amgen Inc. 2009 Director Equity Incentive Program (as amended and/or restated from time to time, the "Program") which implements the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "Plan"), has granted to you, the grantee named above, _____ restricted stock units (the "Units") with respect to _____ Shares on the terms and conditions set forth in this Restricted Stock Unit Agreement, including any appendix hereto (as further described in Section XIV below) containing special terms and conditions applicable to your country (collectively, this "Agreement"), and the Plan (the "Award"). Capitalized terms not defined herein shall have the meanings assigned to such terms in the Plan and/or the Program.

I. Vesting Schedule. Subject to the terms and conditions of this Agreement and in consideration for services previously rendered by you, one hundred percent (100%) of the Units shall vest upon the Grant Date (the "Vesting Date").

II. Form and Timing of Settlement. Any vested Units shall be settled by the Company delivering to you a number of Shares equal to the number of Shares covered by this Award on, or as soon as practicable after, the Vesting Date (but in any event by the fifteenth day of the third month following the tax year in which the Vesting Date occurs) (the "Non-Deferred Payment Date"); *provided*, *however*, that notwithstanding anything herein to the contrary, if you timely and irrevocably elected in writing, pursuant to the Program, to defer the settlement of the vested Units subject to your Award under the Program, then any vested Units shall be settled on the applicable Deferred Payment Date that you elected pursuant to the Program (the Non-Deferred Payment Date or the Deferred Payment Date, as applicable, the "Payment Date"); *provided, further*, *however*, that no Shares shall be issued hereunder unless the Board determines that the consideration received by the Company in exchange for the issuance of Common Stock has a value not less than the par value thereof.

III. Transferability. No benefit payable under, or interest in, this Agreement shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, your or your beneficiary's debts, contracts, liabilities or torts; *provided, however*, nothing in this Section III shall prevent transfer (i) by will, (ii) by applicable laws of descent and distribution or (iii) to an Alternate Payee to the extent that a QDRO so provides, as further described in the Program.

IV. No Contract for Employment. This Agreement is not an employment or service contract and nothing in this Agreement shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ or service of the Company or any Affiliate, or of the Company or any Affiliate to continue your employment or service with the Company or any Affiliate.

V. Notices. Any notices provided for in this Agreement, the Program or the Plan shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company. Such notices may be given using any automated system for the documentation of Units, such as a system using an internet website or interactive voice response, as approved by the Company.

VI. Nature of Grant. In accepting the Units granted hereunder, you acknowledge, understand and agree that:

(a) the Program and Plan are established voluntarily by the Company, are discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time;

(b) the grant of the Units is voluntary and occasional and does not create any contractual or other right to receive future grants of Units, or benefits in lieu of Units, even if Units have been granted repeatedly in the past;

(c) your participation in the Program and Plan is voluntary;

(d) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(e) the future value of the underlying Shares is unknown and cannot be predicted with certainty; and

(f) the Units and the benefits under the Program and Plan, if any, will not automatically transfer to another company in the case of a merger, takeover or transfer of liability.

VII. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Program and Plan, or your acquisition or sale of the underlying Shares. You should consult with your own personal tax, legal and financial advisors regarding your participation in the Program and Plan before taking any action related to the Program and Plan.

VIII. ***Data Privacy and Notice of Consent. You hereby expressly consent to the collection, use and transfer, in electronic or other form, of your personal data as described in this Agreement for the purpose of implementing, administering and managing your participation in the Program and Plan. In order for the Company to facilitate your participation in the Program and Plan, the Company must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.***

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB (or any successor thereto) or any other third parties which may assist the Company (presently or in the future) with implementing, administering, and managing your participation in the Program and Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Program and Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares issued in settlement of the Units may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Where permitted by applicable law, you may, at any time, request access or correction to, or destruction or data portability of your personal data by contacting the Company. You understand that refusal or withdrawal of consent may affect your ability to participate in the Program and Plan. For more information on the consequences of your refusal to consent or withdrawal of consent, you understand that you may contact the Company.

IX. Language. If you have received this Agreement or any other document related to the Program and Plan translated into a language other than English and if the meaning of the translated version differs from the English version, the English version shall control.

X. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Program and Plan (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Program and Plan through an online or electronic system established and maintained by the Company or a third party designated by the Company.

XI. Severability. The provisions of this Agreement are severable and if any one or more are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

XII. Plan and Program. This Agreement is subject to all the provisions of the Plan and Program and their provisions are hereby made a part of this Agreement, including without limitation the provisions of Section 9.5 of the Plan relating to Restricted Stock Units, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan and the Program, the provisions of the Plan and the Program shall control.

XIII. Governing Law and Venue. The terms of this Agreement shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Agreement is made and/or to be performed.

XIV. Appendix. Notwithstanding any provisions in this Agreement, Units shall be subject to any special terms and conditions set forth in any Appendix to this Agreement for your country. Moreover, if you relocate to one of the countries included in the Appendix, the special terms and conditions for such country will apply to you, to the extent the Company determines that the application of such terms and conditions is necessary or advisable in order to comply with local law or facilitate the administration of the Program and Plan. The Appendix constitutes part of this Agreement.

XV. Imposition of Other Requirements. The Company reserves the right to impose other requirements on your participation in the Plan, on the Units and on any Shares acquired under the Program and Plan, to the extent the Company determines it is necessary or advisable in order to comply with local law or facilitate the administration of the Program and Plan, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XVI. Waiver. You acknowledge that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by you or any other grantee.

XVII. Dividend Equivalent Rights. Each Unit granted hereunder shall be credited with a corresponding Dividend Equivalent right, pursuant to which, if the Company declares one or more dividends or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the Grant Date through and including the day immediately preceding the day that Shares are issued to you in settlement of your Units, whether in the form of cash, Shares or other property, then on the date such Dividend is paid to the Company's stockholders you shall be credited with an amount equal to the amount or Fair Market Value of such Dividend which would have been payable to you if you then held a number of Shares equal to the number of the Shares covered by your Units as of the record date for such Dividend. Any such Dividend Equivalents shall be credited and deemed reinvested in the Shares as of the Dividend payment date. Dividend Equivalents shall be settled by the Company on the Payment Date. Dividend Equivalents shall be settled by the Company delivering to you full Shares, unless the Board determines, at any time prior to payment and in its discretion, that they shall be settled in cash. Dividend Equivalents with respect to fractional Shares shall be settled in cash. Dividend Equivalent rights and any amounts that may become distributable in respect thereof shall be treated separately from the Units and the rights arising in connection therewith for purposes of the designation of time and form of payments required by Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, "Section 409A").

XVIII. Section 409A. To the extent that this Award constitutes a "non-qualified deferred compensation plan" within the meaning of Section 409A, this Award shall be interpreted and operated in accordance with Section 409A. Notwithstanding any provision of this Award to the contrary, in the event that following the grant of any Units, the Board determines that this Award does or may violate any of the requirements of Section 409A, the Board may adopt such amendments to the Award or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Board determines are necessary or appropriate to (a) exempt the Award from the application of Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (b) comply with the requirements of Section 409A; *provided*, *however*, that this paragraph shall not create an obligation on the part of the Board to adopt any such amendment, policy or procedure or take any such other action. No payment hereunder shall be made to you during the six (6)-month period following your "separation from service" (within the meaning of Section 409A) to the extent that the Company determines that paying such amount at the time set forth herein would be a prohibited distribution under Section 409A(a)(2)(B)(i). If the payment of any such amounts is delayed as a result of the previous sentence, then within thirty (30) days following the end of such six (6)-month period (or, if earlier, your death), the Company shall pay to you (or to your estate) the cumulative amounts that would have otherwise been payable to you during such period, without interest.

XIX. Headings. This Agreement's section headings are for convenience only and shall not constitute a part of this Agreement or affect this Agreement's meaning.

XX. Counterparts. This Agreement may be executed in any number of multiple counterparts, each of which shall be deemed to be an original copy and all of which shall constitute one agreement.

Very truly yours,
AMGEN INC.

By: _____
Name:
Title:

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMGEN INC. 2009 AMENDED AND RESTATED EQUITY INCENTIVE PLAN AND 2009 DIRECTOR EQUITY INCENTIVE PROGRAM, IN EACH CASE,

AS AMENDED AND/OR RESTATED
FROM TIME TO TIME

GRANT OF RESTRICTED STOCK UNITS
(NON-U.S.)

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Units granted under the Program and Plan if, under applicable law, you are a resident of, or are deemed to be a resident of one of the countries listed below. Furthermore, the additional terms and conditions that govern any Units granted hereunder may apply to you if you relocate to one of the countries listed below. Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Program, the Plan and/or the Agreement to which this Appendix is attached.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Program and Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of October 2016. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Program and Plan because the information may be outdated when you vest in the Units and acquire Shares under the Program and Plan, or when you subsequently sell Shares acquired under the Program and Plan.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you are advised to seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently working, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. Depending on your country, you may be subject to insider trading restrictions and/or market abuse laws, which may affect your ability to acquire or sell Shares or rights to Shares (*e.g.*, Units) under the Program and Plan during such times as you are considered to have "inside information" regarding the Company (as defined by the laws of your country). Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Program and Plan (including from any Dividends or Dividend Equivalents received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the grant, you confirm having read and understood the Program and Plan and Agreement which were provided in the English language. You accept the terms of those documents accordingly.

En acceptant l'attribution, vous confirmez avoir lu et compris le Program et le Plan et le Contrat, qui ont été communiqués en

langue anglaise. vous acceptez les termes de ces documents en connaissance de cause.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on a specific form together with the income tax return. Failure to comply could trigger significant penalties.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. The Award is not intended to be publicly offered in or from Switzerland. Because this is a private offering in Switzerland, the Units are not subject to registration in Switzerland. Neither this document nor any other materials relating to the Units (i) constitutes a prospectus as such term is understood pursuant to article 652a of the Swiss Code of Obligations, (ii) may be publicly distributed nor otherwise made publicly available in Switzerland or (iii) have been or will be filed with, approved or supervised by any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority ("FINMA").

CASH-SETTLED RESTRICTED STOCK UNIT AGREEMENT
(Director Equity Incentive Program)

_____, Amgen Inc. Grantee:

On this __ day of _____ (the "Grant Date"), Amgen Inc., a Delaware corporation (the "Company"), pursuant to its Amgen Inc. 2009 Director Equity Incentive Program (as amended and/or restated from time to time, the "Program") has granted to you, the grantee named above, an award (the "Award") of _____ restricted stock units (the "Units") with respect to _____ Shares on the terms and conditions set forth in this Restricted Stock Unit Agreement, including any appendix hereto (as further described in Section XV below) containing special terms and conditions applicable to your country (collectively, this "Agreement"). Capitalized terms not defined herein shall have the meanings assigned to such terms in the Program.

I. Non-Plan Grant. The Award and the Units granted hereunder are granted as a stand-alone award, separate and apart from, and not granted under, or subject to, the terms of the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "Plan"), and the Award shall not constitute an award granted under or pursuant to the Plan. Notwithstanding the foregoing, the terms, conditions and definitions set forth in the Plan shall apply to the Award as though the Award had been granted under the Plan (including but not limited to the provisions contained in Article 12 and Section 13.2 of the Plan), and the Award shall be subject to such terms, conditions and definitions, which are hereby incorporated into this Agreement by reference. For the avoidance of doubt, the Units shall not count towards the number of Shares authorized for grant under Section 3.1(a) of the Plan but shall count towards the Director Limit set forth in Section 3.4 of the Plan.

II. Vesting Schedule. Subject to the terms and conditions of this Agreement and in consideration for services previously rendered by you, one hundred percent (100%) of the Units shall vest upon the Grant Date (the "Vesting Date").

III. Form and Timing of Settlement. Any vested Units shall be settled by the Company delivering to you an amount in cash equal to the Fair Market Value (as defined in the Plan) of the number of Shares covered by this Award on the applicable Deferred Payment Date that you elected pursuant to the Program.

IV. Transferability. No benefit payable under, or interest in, this Agreement shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, your or your beneficiary's debts, contracts, liabilities or torts; *provided, however*, nothing in this Section IV shall prevent transfer (i) by will, (ii) by applicable laws of descent and distribution or (iii) to an Alternate Payee to the extent that a QDRO so provides, as further described in the Program.

V. No Contract for Employment. This Agreement is not an employment or service contract and nothing in this Agreement shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ or service of the Company or any Affiliate, or of the Company or any Affiliate to continue your employment or service with the Company or any Affiliate.

VI. Notices. Any notices provided for in this Agreement or the Program shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company. Such notices may be given using any automated system for the documentation of Units, such as a system using an internet website or interactive voice response, as approved by the Company.

VII. Nature of Grant. In accepting the Units granted hereunder, you acknowledge, understand and agree that:

(a) the Program is established voluntarily by the Company, are discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time;

(b) the grant of the Units is voluntary and occasional and does not create any contractual or other right to receive future grants of Units, or benefits in lieu of Units, even if Units have been granted repeatedly in the past;

(c) your participation in the Program is voluntary;

(d) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(e) the future value of the underlying Shares is unknown and cannot be predicted with certainty; and

(f) the Units and the benefits under the Program, if any, will not automatically transfer to another company in the case of a merger, takeover or transfer of liability.

VIII. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Program. You should consult with your own personal tax, legal and financial advisors regarding your participation in the Program before taking any action related to the Program.

IX. ***Data Privacy and Notice of Consent. You hereby expressly consent to the collection, use and transfer, in electronic or other form, of your personal data as described in this Agreement for the purpose of implementing, administering and managing your participation in the Program. In order for the Company to facilitate your participation in the Program, the Company must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.***

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB (or any successor thereto) or any other third parties which may assist the Company (presently or in the future) with implementing, administering, and managing your participation in the Program to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Program. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Where permitted by applicable law, you may, at any time, request access or correction to, or destruction or data portability of your personal data by contacting the Company. You understand that refusal or withdrawal of consent may affect your ability to participate in the Program. For more information on the consequences of your refusal to consent or withdrawal of consent, you understand that you may contact the Company.

X. Language. If you have received this Agreement or any other document related to the Program translated into a language other than English and if the meaning of the translated version differs from the English version, the English version shall control.

XI. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Program (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Program through an online or electronic system established and maintained by the Company or a third party designated by the Company.

XII. Severability. The provisions of this Agreement are severable and if any one or more are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

XIII. Program. This Agreement is subject to all the provisions of the Program and its provisions are hereby made a part of this Agreement, and it is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Program. In the event of any conflict between the provisions of this Agreement and those of the Program, the provisions of the Program shall control.

XIV. Governing Law and Venue. The terms of this Agreement shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Agreement is made and/or to be performed.

XV. Appendix. Notwithstanding any provisions in this Agreement, Units shall be subject to any special terms and conditions set forth in any Appendix to this Agreement for your country. Moreover, if you relocate to one of the countries included in the Appendix, the special terms and conditions for such country will apply to you, to the extent the Company determines that the application of such terms and conditions is necessary or advisable in order to comply with local law or facilitate the administration of the Program. The Appendix constitutes part of this Agreement.

XVI. Imposition of Other Requirements. The Company reserves the right to impose other requirements on the Units to the extent the Company determines it is necessary or advisable in order to comply with local law or facilitate the administration of

the Program, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XVII. Waiver. You acknowledge that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by you or any other grantee.

XVIII. Dividend Equivalent Rights. Each Unit granted hereunder shall be credited with a corresponding Dividend Equivalent right, pursuant to which, if the Company declares one or more dividends or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the Grant Date through and including the day immediately preceding the day that cash is delivered to you in settlement of your Units, then on the date such Dividend is paid to the Company's stockholders you shall be credited with an amount equal to the amount or Fair Market Value of such Dividend which would have been payable to you if you then held a number of Shares equal to the number of the Shares covered by your Units as of the record date for such Dividend. Any such Dividend Equivalents shall be credited and deemed reinvested in the Shares as of the Dividend payment date. Dividend Equivalents shall be settled by the Company on the Deferred Payment Date. Dividend Equivalents shall be settled by the Company delivering to you an amount in cash equal to the Fair Market Value of the number of Shares covered by the Dividend Equivalent right. Dividend Equivalent rights and any amounts that may become distributable in respect thereof shall be treated separately from the Units and the rights arising in connection therewith for purposes of the designation of time and form of payments required by Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, "Section 409A").

XIX. Section 409A. To the extent that this Award constitutes a "non-qualified deferred compensation plan" within the meaning of Section 409A, this Award shall be interpreted and operated in accordance with Section 409A. Notwithstanding any provision of this Award to the contrary, in the event that following the grant of any Units, the Board determines that this Award does or may violate any of the requirements of Section 409A, the Board may adopt such amendments to the Award or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Board determines are necessary or appropriate to (a) exempt the Award from the application of Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (b) comply with the requirements of Section 409A; *provided*, *however*, that this paragraph shall not create an obligation on the part of the Board to adopt any such amendment, policy or procedure or take any such other action. No payment hereunder shall be made to you during the six (6)-month period following your "separation from service" (within the meaning of Section 409A) to the extent that the Company determines that paying such amount at the time set forth herein would be a prohibited distribution under Section 409A(a)(2)(B)(i). If the payment of any such amounts is delayed as a result of the previous sentence, then within thirty (30) days following the end of such six (6)-month period (or, if earlier, your death), the Company shall pay to you (or to your estate) the cumulative amounts that would have otherwise been payable to you during such period, without interest.

XX. Headings. This Agreement's section headings are for convenience only and shall not constitute a part of this Agreement or affect this Agreement's meaning.

XXI. Counterparts. This Agreement may be executed in any number of multiple counterparts, each of which shall be deemed to be an original copy and all of which shall constitute one agreement.

Very truly yours,
AMGEN INC.

By: _____
Name:
Title:

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMGEN INC. 2009 DIRECTOR EQUITY INCENTIVE PROGRAM, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

GRANT OF RESTRICTED STOCK UNITS
(NON-U.S.)

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Units granted under the Program if, under applicable law, you are a resident of, or are deemed to be a resident of one of the countries listed below. Furthermore, the additional terms and conditions that govern any Units granted hereunder may apply to you if you relocate to one of the countries listed below. Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Program and/or the Agreement to which this Appendix is attached.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Program. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of October 2016. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Program because the information may be outdated when you vest in the Units under the Program.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you are advised to seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently working, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold cash received from participating in the Program (including from any Dividends or Dividend Equivalents received) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the grant, you confirm having read and understood the Program and Agreement which were provided in the English language. You accept the terms of those documents accordingly.

En acceptant l'attribution, vous confirmez avoir lu et compris le Program et le Contrat, qui ont été communiqués en langue anglaise. vous acceptez les termes de ces documents en connaissance de cause.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on a specific form together with the income tax return. Failure to comply could trigger significant penalties.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. The Award is not intended to be publicly offered in or from Switzerland. Because this is a private offering in Switzerland, the Units are not subject to registration in Switzerland. Neither this document nor any other materials relating to the Units (i) constitutes a prospectus as such term is understood pursuant to article 652a of the Swiss Code of Obligations, (ii) may be publicly distributed nor otherwise made publicly available in Switzerland or (iii) have been or will be filed with, approved or supervised by any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority ("FINMA").

SECOND AMENDMENT TO THE
AMGEN INC. SUPPLEMENTAL RETIREMENT PLAN
AS AMENDED AND RESTATED EFFECTIVE OCTOBER 16, 2013

The Amgen Inc. Supplemental Retirement Plan, as Amended and Restated Effective October 16, 2013 (the "Plan"), is hereby amended, effective October 23, 2019, as follows:

1. Section 2.27 is amended by adding the following at the end thereof:

   If you were employed in the United States by Celgene Corporation or any affiliate of Celgene Corporation (collectively, "Celgene") immediately preceding the Closing Date (as defined in the Asset Purchase Agreement by and among Celgene Corporation, as Seller, and Amgen Inc., as Purchaser, Dated as of August 25, 2019) and effective as of the Closing Date, you were offered and you accepted employment with the Company, then for purposes of calculating your Years of Service under the Plan, you will receive credit for your years of service with Celgene and with Celgene-recognized predecessors prior to the Closing Date.

To record this Second Amendment to the Plan as set forth herein, the Company has caused its authorized officer to execute this document this 23rd day of October, 2019.

AMGEN INC.

By: /s/ Lori A. Johnston

Name: Lori A. Johnston
Title: Executive Vice President, Human Resources

SECOND AMENDMENT TO THE
AMGEN NONQUALIFIED DEFERRED COMPENSATION PLAN
AS AMENDED AND RESTATED EFFECTIVE OCTOBER 16, 2013

The Amgen Nonqualified Deferred Compensation Plan, as Amended and Restated Effective October 16, 2013 (the "Plan"), is hereby amended, effective January 1, 2020, as follows:

1. Section 3.1(d) is deleted in its entirety.

2. Section 8.5 is amended by deleting the fourth sentence thereof and replacing it with the following:

   In addition, if the petition for payout is approved, the Participant's deferrals for the remainder of the Plan Year shall be canceled effective as of the date of such approval. Any deferral for a subsequent Plan Year must be made in accordance with Section 3.2.

To record this Second Amendment to the Plan as set forth herein, the Company has caused its authorized officer to execute this document this 23rd day of October, 2019.

AMGEN INC.

By: /s/ Lori A. Johnston

Name: Lori A. Johnston
Title: Executive Vice President, Human Resources

CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT BOTH (I) IS NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED. SUCH EXCLUDED INFORMATION HAS BEEN MARKED WITH "[*]".

AMGEN INC.

BEIGENE SWITZERLAND GMBH

and

BEIGENE, LTD.

Dated October 31, 2019

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COLLABORATION AGREEMENT

This Collaboration Agreement (this "Agreement") is entered into as of October 31, 2019 (the "Execution Date") by and between Amgen Inc., a Delaware corporation with a principal place of business at One Amgen Center Drive, Thousand Oaks, California 91320 USA ("Amgen"), BeiGene Switzerland GmbH, a Swiss corporation with a principal place of business at Aeschenvorstadt 5, 4051 Basel, Switzerland ("BeiGene") and, solely with respect to Section 13.6, BeiGene, Ltd., a Cayman Islands exempted company incorporated with limited liability with its registered offices c/o Mourant Governance Services (Cayman) Limited, 94 Solaris Avenue, P.O. Box 1348, Grand Cayman KY1-1108, Cayman Islands (" BeiGene Parent"). Amgen and BeiGene are sometimes referred to herein individually as a "Party" and collectively as the "Parties."

RECITALS

WHEREAS, Amgen is a global biopharmaceutical company that researches, develops, manufactures and commercializes therapeutic products to treat grievous illness;

WHEREAS, BeiGene Parent is a global biopharmaceutical company and one of the leading companies in pharmaceutical innovation in the Collaboration Territory (as defined below) and is engaged in research and development, manufacturing, and commercialization of pharmaceutical products in the Collaboration Territory;

WHEREAS, Amgen has developed certain proprietary Products (as defined below) for the treatment of oncology-related diseases and conditions;

WHEREAS, on or before the Effective Date, Amgen will make a 20.5% equity investment in BeiGene Parent and designate a director to serve on the Board of Directors of BeiGene Parent pursuant to the terms of a Share Purchase Agreement by and between BeiGene Parent and Amgen (the "Share Purchase Agreement");

WHEREAS, Amgen and BeiGene desire to collaborate on the commercialization of certain Products approved (or soon to be approved) in the Collaboration Territory and the global development funding and the clinical development and commercialization of certain clinical-stage pipeline Products in the Collaboration Territory; and

WHEREAS, in connection with such collaboration activities and the return to Amgen of certain Products hereunder, BeiGene will provide Amgen assistance in the building of certain of its development, regulatory and commercial capabilities in the Collaboration Territory with respect to such returned Products as set forth in more detail herein.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, and intending to be legally bound, the Parties agree as follows:

ARTICLE I.

DEFINITIONS

Section 1.1 "Access and Pricing Plan" means, with respect to a given Product, the Collaboration Territory-specific plan for such Product prepared by BeiGene and reviewed by the JSC that calculates the Applicable Retail Baseline Price, launch timing ranges and target population for a Product.

Section 1.2 "Affected Party" has the meaning set forth in Section 9.3 (Distracting Transactions Notice).

Section 1.3 "Affiliate" means, with respect to a Party, any Person which controls, is controlled by or is under common control with such Party. For purposes of this definition only, "control" means the actual power, either directly or indirectly through one or more intermediaries, to direct or cause the direction of the management and policies of such Person, whether by the ownership of more than fifty percent (50%) of the securities entitled to be voted generally or in the election of directors of such Person, or by contract or otherwise. Notwithstanding the foregoing, for the purposes of Article IX (Distracting Products) and Section 1.61 ("Distracting Transaction") only, the ownership threshold included in the definition of "control" will be fifty percent (50%) or more, rather than more than fifty percent (50%).

Section 1.4 "Agreement" has the meaning set forth in the Preamble.

Section 1.5 "Aggregate Global Development Cost-Share Cap" has the meaning set forth in Section 7.1.2(b) (Global Development Cost-Share).

Section 1.6 "Alliance Manager" has the meaning set forth in Section 2.8 (Alliance Managers).

Section 1.7 "Allocable Manufacturing Overhead" means, with respect to the Manufacturing Actual Costs for any Products intended for the Collaboration Territory, the Costs incurred by Amgen or for its account, in accordance with GAAP, including [*] and which are specifically allocated (and properly attributable) to such Product's Manufacturing activity (pursuant to this Agreement) within a given company department(s) based on a properly allocable portion of space occupied or headcount or other activity-based method consistent with Amgen's internal accounting principles consistently applied by Amgen, or a standard rate if agreed by the Parties. "Allocable Manufacturing Overhead" shall not include [*].

Section 1.8 "Amgen" has the meaning set forth in the Preamble.

Section 1.9 "Amgen Costs" has the meaning set forth in Section 7.2.2 (Amgen Costs).

Section 1.10 "Amgen Housemarks" means (i) the corporate logo of Amgen, (ii) the trademark "Amgen", (iii) any other trademark, trade name or service mark (whether registered or unregistered) containing the word "Amgen" and (iv) any other trademark or service mark associated with goods or services of Amgen or its Affiliates, but excluding the Product Trademarks and trademarks, trade names or service marks associated with goods or services outside the scope of this Agreement; and all intellectual property rights residing in any of the foregoing.

Section 1.11 "Amgen Indemnitees" has the meaning set forth in Section 13.1 (Indemnity by BeiGene).

Section 1.12 "Amgen Intellectual Property" means any Know-How, Patent, electronic media registrations (including domain names, usernames, websites, blogs and the like), or Copyrights Controlled by Amgen or its Affiliates that (i) as of the Effective Date are being used in connection with the research and development of any of the Products, or (ii) are used (but is not generated or conceived) during the Term by either Party or its Affiliates in the performance of this Agreement.

Section 1.13 "Amgen Pipeline Product Global Development Costs" means all Costs incurred by Amgen and its Affiliates during the Term in connection with the development of Pipeline Products in accordance with the Global Development Plan and Global Development Budget, including:

(a) all Costs incurred by Amgen or its Affiliates in performing development activities which have been designated to Amgen in furtherance of the Global Development Plan (including [*]);

(b) all Costs incurred by Amgen or its Affiliates associated with obtaining, maintaining and renewing Regulatory Filings and Regulatory Approvals pertaining to a Pipeline Product;

(c) all manufacturing Costs not otherwise included in Manufacturing Standard Cost or Manufacturing Actual Costs, including [*];

(d) for any clinical supply of Pipeline Products, (i) the Manufacturing Standard Cost, if it is manufactured in Amgen's (or its designee's) clinical manufacturing facility, or (ii) all Manufacturing Actual Costs, if it is manufactured in Amgen's (or its designee's) non-clinical (i.e., commercial) manufacturing facility;

(e) Medical Affairs Activities Costs to the extent relevant to clinical development;

(f) [*]; and

(g) all Costs incurred by Amgen or its Affiliates for other materials (such as non-Party comparator drugs and placebo) obtained or made for use in Clinical Studies of or related to a Pipeline Product.

For clarity, Amgen Pipeline Product Global Development Costs shall include Costs incurred by Amgen to manage any of (a) through (g) above to the extent performed by any contract research organization by or on behalf of Amgen, but shall exclude any Cost subject to an indemnification obligation under Article XIII.

Section 1.14 "Amgen Program Intellectual Property" has the meaning set forth in Section 10.1 (Program Intellectual Property Ownership).

Section 1.15 "Anti-Corruption Laws" means laws, regulations, or orders prohibiting the provision of a financial or other advantage for a corrupt purpose or otherwise in connection with the improper performance of a relevant function, including the U.S. Foreign Corrupt Practices Act (FCPA), Criminal Law applicable in the Collaboration Territory, Anti-Unfair Competition Law applicable in the Collaboration Territory and similar laws intended to prohibit corruption and bribery, regardless of whether those laws pertain to corruption and bribery involving public or private individuals or entities.

Section 1.16 "Applicable Retail Baseline Price" means the applicable base list price under which BeiGene may Commercialize a Product in the Collaboration Territory as determined by the methodology set forth in the Applicable Retail Baseline Price Schedule or as otherwise agreed in writing by Amgen in its sole discretion.

Section 1.17 "Applicable Law" means, individually and collectively, any federal, state, local, national and supra-national laws, treaties, statutes, ordinances, rules and regulations, including any rules, regulations, guidance, guidelines or requirements having the binding effect of law of national securities exchanges, automated quotation systems or securities listing organizations, Governmental Authorities, courts, tribunals, agencies other than Governmental Authorities, legislative bodies and commissions that are in effect from time to time during the Term and applicable to a particular activity hereunder, including, to the extent applicable, Good Clinical Practices (GCP), Good Laboratory Practices (GLP) and Good Manufacturing Practices (GMP), including all applicable data protection and privacy laws, rules and regulations, Anti-Corruption Laws and Healthcare Compliance Requirements.

Section 1.18 "Assisting Party" has the meaning set forth in Section 13.4.1 (All Third Party Claims except Infringement and Invalidity Claims).

Section 1.19 "Audited Party" has the meaning set forth in Section 8.4.1 (Accounting).

Section 1.20 "Auditing Party" has the meaning set forth in Section 8.4.1 (Accounting).

Section 1.21 "BeiGene" has the meaning set forth in the Preamble.

Section 1.22 "BeiGene Costs" has the meaning set forth in Section 7.2.1 (BeiGene Costs).

Section 1.23 "BeiGene Development Cost Savings" means, with respect to any Clinical Study, a portion of which is conducted by BeiGene for the Development of any Pipeline Product pursuant to the Global Development Plan and Global Development Budget, the positive difference between (i) the budgeted Costs applicable to such Clinical Study which reflects Amgen's existing planned costs to conduct such Clinical Study [*] and (ii) the actual Cost to conduct such Clinical Study.

Section 1.24 "BeiGene Housemarks" means (i) the corporate logo of BeiGene, (ii) the trademark of BeiGene's corporate name, (iii) any other trademark, trade name or service mark (whether registered or unregistered) containing the word of BeiGene's corporate name, and (iv) any other trademark or service mark associated with goods or services of BeiGene or its Affiliates, but excluding the Product Trademarks and trademarks, trade names or service marks associated with goods or services outside the scope of this Agreement; and all intellectual property rights residing in any of the foregoing.

Section 1.25 "BeiGene Indemnitees" has the meaning set forth in Section 13.2 (Indemnity by Amgen).

Section 1.26 "BeiGene Intellectual Property" means BeiGene Other Intellectual Property and BeiGene Pre-Existing Intellectual Property.

Section 1.27 "BeiGene Other Intellectual Property" means any Know-How, Patents, electronic media registrations (including domain names, usernames, websites, blogs and the like), or Copyrights Controlled by BeiGene or its Affiliates that are used (but not generated or conceived) by BeiGene or its Affiliates or are authorized by BeiGene for use by Amgen or its Affiliates, during the Term in the performance of this Agreement.

Section 1.28 "BeiGene Pipeline Product Development Costs" means all Costs incurred by BeiGene and its Affiliates in or for the Collaboration Territory during the Term in connection with the Development of Pipeline Products in accordance with the Global Development Plan and the Global Development Budget, including:

(a) all Costs incurred by BeiGene or its Affiliates in performing development activities which have been designated to BeiGene (including the costs of Clinical Studies and related support to obtain Regulatory Approval for a Pipeline Product);

(b) all Costs incurred by BeiGene or its Affiliates for other materials (such as non-Party comparator drugs and placebo) reasonably required to be obtained or made for use in Clinical Studies of or related to a Pipeline Product;

(c) all Costs incurred by BeiGene or its Affiliates associated with obtaining, maintaining and renewing Regulatory Filings and Regulatory Approvals for a Pipeline Product; and

(d) Medical Affairs Activities Costs to the extent relevant for clinical development.

For clarity, BeiGene Pipeline Product Development Costs shall include any Costs incurred by BeiGene or its Affiliates to manage any of (a) through (d) above to the extent performed by any CROs by or on behalf of BeiGene, but shall exclude any Cost subject to an indemnification obligation under Article XIII.

Section 1.29 "BeiGene Pre-Existing Intellectual Property" means any Know-How, Patents, electronic media registrations (including domain names, usernames, websites, blogs and the like), or Copyrights Controlled by BeiGene or its Affiliates in existence as of the Effective Date that specifically relates to the composition of matter of a Product, a method of using a Product, or a method of treatment with a Product.

Section 1.30 "Change of Control" with respect to a Party, is deemed to have occurred if any of the following occurs after the Effective Date:

(a) any "person" or "group" (as such terms are defined below) who (i) becomes or acquires the right to become (including, by way of a tender or exchange offer) the "beneficial owner" (as such term is defined below), directly or indirectly, of shares of capital stock or other interests (including partnership interests) of such Party then outstanding (without regard to the occurrence of any contingency) to vote in the election of the directors, managers or similar supervisory positions ("Voting Stock") of such Party representing fifty percent (50%) or more of the total voting power of all outstanding classes of Voting Stock of such Party, (ii) acquires the power, directly or indirectly, to elect a majority of the members of the Party's board of directors, or similar governing body ("Board of Directors"), or (iii) otherwise has the ability to direct or cause the direction of the management or operation of the Party; or

(b) such Party enters into any merger, consolidation, other business combination or similar transaction with another Person (whether or not such Party is the surviving entity), unless immediately after such merger, consolidation, other business combination or similar transaction (i) the members of the Board of Directors of such Party constituting at least a majority of the members of the Board of Directors of such Party immediately prior to such transaction continue to constitute a majority of the members of the Board of Directors of such Party or such surviving Person immediately following such transaction and (ii) the Persons that beneficially owned, directly or indirectly, at least a majority of the shares of Voting Stock of such Party immediately prior to such transaction continue to beneficially own (either by such shares remaining outstanding or by their being converted into shares of voting capital stock of the surviving Person), directly or indirectly, shares of Voting Stock of such Party representing at least a majority of the total voting power of all outstanding classes of Voting Stock of the surviving Person in substantially the same proportions as their ownership of Voting Stock of such Party immediately prior to such transaction; or

(c) such Party sells, transfers, leases or otherwise conveys to any Third Party, in one (1) or more related transactions, properties or assets representing all or substantially all of such Party's assets to which this Agreement relates; or

(d) the holders of capital stock of such Party approve a plan or proposal for the liquidation or dissolution of such Party.

For the purpose of this definition of Change of Control, (i) "person" and "group" have the meanings given such terms under Section 13(d) and 14(d) of the United States Securities Exchange Act of 1934 and the term "group" includes any group acting for the purpose of acquiring, holding or disposing of securities within the meaning of Rule 13d-5(b)(1) under the said Act; (ii) a "beneficial owner" is determined in accordance with Rule 13d-3 under the aforesaid Act; (iii) the terms "beneficially owned" and "beneficially own" have meanings correlative to that of "beneficial owner"; and (iv) the term "Party" means both the Party and the Person that controls such Party (as control is defined in Section 1.3).

Section 1.31 "Clinical Study" means a research study (including interventional and observational studies) in which data from one or more human subjects is collected to evaluate health-related biomedical outcomes, including a Phase 4 Study.

Section 1.32 "Collaboration Activities" means the following activities to the extent conducted in or for the Collaboration Territory during the Term (i) pre-clinical and Clinical Studies, regulatory activities, and clinical supply activities for Products, (ii) establishment of the importation specifications and performance of importation testing (in each case, for clinical and commercial purposes), (iii) CMC or manufacturing process development for a Product to the extent required, or determined by the Parties, to support development or commercialization activities specifically for the Collaboration Territory as set forth in the Global Development Plan or Commercialization Plan, (iv) life cycle management activities or other related activities with respect to the Products for the Collaboration Territory and (v) commercialization activities described in the definition of "Commercialization and Related Costs."

Section 1.33 "Collaboration Profits" has the meaning set forth in Section 7.2.7 (Calculation of Collaboration Profits).

Section 1.34 "Collaboration Scope" means, with respect to a particular Product, any and all human uses of such Product in the Collaboration Territory.

Section 1.35 "Collaboration Territory" means the People's Republic of China, but not including Hong Kong Special Administrative Region (SAR), Macao Special Administrative Region (SAR), or Taiwan.

Section 1.36 "Commercial Lead" has the meaning set forth in Section 5.2 (Commercial Lead).

Section 1.37 "Commercialization" and "Commercialize" means all activities undertaken relating to the marketing, promotion (including advertising, detailing, sponsored product or continuing medical education), any other offering for sale, distribution, or sale of a Product.

Section 1.38 "Commercialization Budget" means the applicable budget prepared by BeiGene and approved by the JSC for the Commercialization of each Product in the Collaboration Territory in accordance with the applicable Commercialization Plan (which budget will be updated annually, will cover a period of at least five (5) years and will include quarterly budgets for a period of at least one (1) year for the current year).

Section 1.39 "Commercialization and Related Costs" means all Costs incurred by a Party and its Affiliates during the Term in connection with the Commercialization of Products in the Collaboration Territory, including:

(a) selling expenses, or other Costs and expenses associated with marketing of the Product for Commercialization in the Collaboration Territory, including Sales Force Costs calculated in accordance with Section 5.7.1 (Calculation of Sales Force Costs and Other Personnel Costs);

(b) costs for preparing and reproducing Commercialization materials, including [*];

(c) Costs of sales and marketing data, costs associated with training of the sales representatives incurred in accordance with Section 5.4 (Training), sales activity reporting and work on target customer accounts;

(d) [*];

(e) marketing Costs and Medical Affairs Activities Costs incurred in connection with launch readiness activities in or for the Collaboration Territory prior to commercialization and during commercialization;

(f) all Costs incurred by the Parties or their respective Affiliates associated with any recalls of a Product in the Collaboration Scope and in or for the Collaboration Territory;

(g) all Costs incurred by the Parties or their respective Affiliates with respect to product liability claims for Products in the Collaboration Scope in the Collaboration Territory;

(h) all Costs incurred by the Parties or their respective Affiliates associated with any returns and withdrawals of a Product in the Collaboration Scope in the Collaboration Territory;

(i) all Costs incurred by the Parties or their respective Affiliates in [*];

(a) all defense, enforcement, settlement and cooperation Costs incurred by the Parties or their respective Affiliates within or materially related to the Collaboration Scope, to the extent such defense, enforcement, settlement and cooperation are conducted in or for the Collaboration Territory, in accordance with Section 13.4.1 (All Third Party Claims except Infringement and Invalidity Claims), Section 13.4.2 (Infringement and Invalidity Claims) and Section 10.9 (Enforcement) (but, in each case, not including defense Costs incurred by a Party in fulfilling its indemnification obligations);

(b) all Costs incurred by the Parties or their respective Affiliates in connection with Prosecution and Maintenance of Amgen Intellectual Property and Program Intellectual Property within or materially related to the Collaboration Scope, to the extent such Prosecution and Maintenance are conducted in or for the Collaboration Territory, in accordance with Section 10.7 (Prosecution and Maintenance);

(c) any amounts paid by either Party or their respective Affiliates to Third Parties for rights to manufacture, use or sell a Product within the Collaboration Scope ("Third Party IP Payments") to the extent not already included in Manufacturing Actual Costs; and

(d) all unrecovered Indirect taxes, including, for the avoidance of doubt, unrecovered VAT surcharge, incurred by either Party arising with respect to payments to be made under Section 7.2.7 (Calculation of Collaboration Profits);

in each case solely to the extent (i) not previously deducted from gross invoiced amounts in determining Net Revenues hereunder and (ii) with respect to (a) through (e) and (i), included in the Commercialization Plan and Commercialization Budget.

Such Costs may include all Costs for outside services and expenses (e.g., consultants, agency fees, etc.). Commercialization and Related Costs shall not include [*]or any Cost subject to an indemnification obligation under Article XIII.

Section 1.40 "Commercialization Plan" means a rolling strategic and operational commercialization plan for the applicable Product in the Collaboration Territory (which plan will be a detailed plan for the first year and a rolling [*]high level plan for all subsequent years and will be updated and approved on a periodic basis but no less than annually by the JSC), which sets forth, among other things, (i) a multi-year Commercialization strategy that includes plans for [*], (ii) a multi-year communications strategy that includes plans for [*], and (iii) an operating plan for the implementation of such strategies on an annual basis, including information related to [*], all as developed and approved by the JSC and JAC.

Section 1.41 "Commercially Reasonable Efforts" means, with respect to a Party and/or its Affiliates and an activity under this Agreement, the efforts and expenditures that would be employed, in good faith and in accordance with Applicable Law, by a reasonably prudent company in the pharmaceutical industry, which prudent company is performing such activity for their pharmaceutical products that are of similar commercial potential to the Product, but in no event less than the standards and level, consistent with commercially reasonable practices, commonly applied by other biopharmaceutical companies to their biopharmaceutical products of a similar stage of development or commercialization, safety, efficacy, intellectual property profile, commercial potential, actual or anticipated Governmental Authority approved labeling, and cost and likelihood of obtaining Regulatory Approval, but specifically excluding (i) [*] and (ii) [*].

Section 1.42 "Compensating Payment" has the meaning set forth in Section 7.2.7 (Calculation of Collaboration Profits).

Section 1.43 "Confidential Information" has the meaning set forth in Section 11.1 (Confidentiality; Exceptions).

Section 1.44 "Contract Interest Rate" means [*], or, if lower, the maximum rate permitted by Applicable Law.

Section 1.45 "Control" or "Controlled" means, with respect to any intellectual property right, that a Party owns or has a license (other than a license granted to such Party under this Agreement) to such right and, in each case, has the ability to grant to the other Party access, a license, or a sublicense (as applicable) to such other Party on the terms and conditions set forth in this Agreement without violating the terms of any then-existing agreement with any Third Party as of the time such Party would first be required hereunder to grant such access and license or sublicense.

Section 1.46 "Copyrights" means all right, title, and interest in and to all copyrightable works and any copyright registration or corresponding legal right.

Section 1.47 "Core Data Sheet" means the internal Amgen-developed document that sets forth the efficacy and safety profile for a Product.

Section 1.48 "Costs" means both internal and external costs and expenses (including the cost of allocated FTEs at the FTE Rate and Sales Force FTEs at the Sales Force FTE Rate).

Section 1.49 "Cover" means, with respect to a given Product, that a Valid Claim would (absent a license thereunder or ownership thereof) be infringed by the using, offering to sell, selling, importing or exporting of such Product. Cognates of the word "Cover" shall have correlative meanings.

Section 1.50 "Critical Matters" means, with respect to a decision of the Parties, JSC or JAC, (i) decisions that are likely to [*]; (ii) decisions that are likely to [*]; (iii) decisions with respect to the approval (or amendment) of [*] for each Product; (iv) decisions to approve [*] for each Product, [*] and any changes to [*]; and (v) decisions that are reasonably likely to [*] for any Product [*].

Section 1.51 "Defending Party" has the meaning set forth in Section 13.4 (Defense of Third Party Claims).

Section 1.52 "Designated Amgen Activities" means those Collaboration Activities for which Amgen (or its Affiliates) is responsible pursuant to this Agreement, including such activities allocated to it by any of the committees and teams established under this Agreement.

Section 1.53 "Designated BeiGene Activities" means those Collaboration Activities for which BeiGene (or its Affiliates) is responsible pursuant to this Agreement, including such activities allocated to it by any of the committees and teams established under this Agreement.

Section 1.54 "Designated Officer" means (i) with respect to BeiGene, (a) with respect to commercial matters, the General Manager of China and (b) with respect to all other matters, Senior Vice President and Head of APAC Clinical Development and (ii) with respect to Amgen, (a) with respect to commercial matters, the Head of Global Commercial and (b) with respect to all other matters, the Head of Research and Development.

Section 1.55 "Develop" or "Development" means all activities relating to research, non-clinical and preclinical testing and trials, clinical testing and trials, including Clinical Studies, toxicology testing, modification, optimization and animal efficacy testing of pharmaceutical compounds, statistical analysis, publication and presentation of study results and reporting, preparation and submission to regulatory authorities of applications relating to Products.

Section 1.56 "Development Costs" means Amgen Pipeline Product Global Development Costs and BeiGene Pipeline Product Development Costs.

Section 1.57 "Dispute" has the meaning set forth in Section 15.4.2.

Section 1.58 "Distracted Party" means a Party that conducts or participates in, advises, assists, or enables any of its Affiliates or any Third Party to conduct or participate in, any Distracting Program or enters into any Distracting Transaction.

Section 1.59 "Distracting Product" has the respective meanings set forth on the Distracting Products Schedule, *provided* that "Distracting Product" shall not include (i) solely with respect to the ROW, (a) any product that corresponds to a Product which is a Suspended Product or (b) any product that corresponds to a Product which is a Suspended Product that is terminated from this Agreement with respect to the ROW only, or (ii) any product that corresponds to a Product that is terminated from this Agreement worldwide.

Section 1.60 "Distracting Program" means [*]of any Distracting Product.

Section 1.61 "Distracting Transaction" means any transaction entered into by a Party or its Affiliates on or after the Effective Date whereby a Third Party that is engaged in a Distracting Program either (i) becomes an Affiliate of such Party or any of its Affiliates or (ii) sells, transfers or assigns all or substantially all of its assets to such Party or any of its Affiliates.

Section 1.62 "Distribution" means, with respect to each Product in the Collaboration Scope, distribution and supply chain management, including through sub-distributors, wholesalers and pharmacies, up to and including delivery to the customer or clinical site.

Section 1.63 "Divest" means, with respect to any Distracting Program, the sale, exclusive license or other transfer of all of the right, title and interest in and to such Distracting Program, including technology, Know-How, intellectual property and other assets materially relating thereto, to an independent Third Party, without the retention or reservation of any rights or interest (other than solely an economic interest, reversion rights or other similar rights typical of a licensor in an exclusive license agreement) in such Distracting Program by the relevant Party or its Affiliates. When used as a noun, each of "Divestiture" and "Divestment" has a corresponding meaning.

Section 1.64 "Effective Date" has the meaning set forth in Section 14.1 (Term).

Section 1.65 "Expected NRDL List Price" means the NRDL List Price that [*] which is reasonably likely to be approved by the applicable Governmental Authority in the Collaboration Territory.

Section 1.66 "Exclusivity Period" means, except as set forth in Article IX, with respect to a given Product (i) with respect to the Collaboration Territory, the period from the Effective Date through the date of termination of this Agreement with respect to such Product (subject to any reinstatement pursuant to Section 14.7) or Suspended Product, as applicable, and (ii) with respect to the ROW, the period from the Effective Date through the earlier of (x) the date the Product becomes a Suspended Product (subject to Section 9.1.4(c)) and (y) the date of termination of this Agreement with respect to such Product (subject to any reinstatement pursuant to Section 14.7).

Section 1.67 "Exploit" means, with respect to a Product, to research, develop, commercialize, make, have made, use, market, offer for sale, sell, import, export, manufacture, have manufactured or otherwise exploit, distribute, promote, or transfer possession of or title in such Product. Cognates of the word "Exploit" shall have correlative meanings.

Section 1.68 "First Commercial Sale" means, with respect to a Product, the first sale for end use or consumption of such Product after Regulatory Approval and pricing approval have been granted.

Section 1.69 "First Party" has the meaning set forth in Section 8.6.4(b) (Cooperation and Actions Requiring Consent).

Section 1.70 "Force Majeure" has the meaning set forth in Section 15.8 (Force Majeure).

Section 1.71 "FTE" means, with respect to a person (other than an employee that is a Sales Force FTE), the equivalent of the work of one (1) employee full time for one (1) year (consisting of at least a total of (i) [*] weeks or (ii) [*] hours per year in the ROW (excluding vacations and holidays) or [*] hours per year in the Collaboration Territory (excluding vacations and holidays)). Overtime, and work on weekends, holidays and the like will not be counted with any multiplier (e.g., time-and-a-half or double time) toward the number of hours that are used to calculate the FTE contribution. No one person shall be permitted to account for more than one FTE.

Section 1.72 "FTE Rate" means for any employee of BeiGene or Amgen (i) conducting Development activities [*], increasing by [*] each January 1st beginning on January 1, 2021 and (ii) conducting Commercialization activities (excluding Sales Force activities but including Other Personnel activities) [*], increasing by the rate of [*] beginning on January 1, 2021. The Parties hereby agree to discuss in good faith appropriate adjustments to the FTE Rate which consider relevant China benchmarks not less than once every [*] years beginning on the second anniversary of the Effective Date. The FTE Rate includes costs associated with salaries, payroll taxes, bonuses, benefits, recruiting, relocation, employee stock option programs or stock grants, retirement programs, and applicable overhead (e.g., facilities, operating supplies, travel and training). No one person shall be permitted to

account for more than one FTE.

Section 1.73 "GAAP" means the then-current generally accepted accounting principles in the United States as established by the Financial Accounting Standards Board or any successor entity or other entity generally recognized as having the right to establish such principles in the United States, in each case consistently applied.

Section 1.74 "Generic/Biosimilar Market Entry Threshold" means a condition where, with respect to a particular Product in a particular country, (i) a Generic/Biosimilar Product is being marketed or sold in such country by a Third Party; and (ii) the aggregate Net Revenues of such Product in that country during any [*] following the calendar quarter of the first commercial sale of the applicable Generic/Biosimilar Product (the "Generic Launch Quarter") are lower than the aggregate Net Revenues of such Product in such country during the last [*]immediately prior to the Generic Launch Quarter by [*].

Section 1.75 "Generic/Biosimilar Product" means, with respect to a given Product in a particular country, after Regulatory Approval of such Product in such country, any other therapeutic drug product designated for human use which (A) (i) contains the same or highly similar principal molecular structural features as (but not necessarily all of the same structural features as) such Product except for minor differences in clinically inactive components, (ii) has no clinically meaningful differences from such Product in terms of purity, potency, safety, mechanism of action, route of administration, dosage form and strength, and (iii) is approved for use pursuant to a Regulatory Approval process in such country that is based on the indications and conditions of use on an unrelated party's previously approved version of that same product (i.e., a product meeting the standards set forth in the foregoing clauses (i) and (ii)), whether or not such regulatory approval was based upon data generated by the Parties filed with the applicable governmental authority in such country or was obtained using an abbreviated, expedited or other process, and (iv) is authorized for sale or sold in the same country (or is commercially available in the same country via import from another country) as the Product by a Party or any Third Party, as applicable or (B) (i) contains the same active ingredient as the Product and is approved for use in such country by a regulatory authority through an Abbreviated New Drug Application as defined in the FD&C Act, pursuant to Article 10.1 of Directive 2001/83/EC of the European Parliament and Council of 6 November 2001, or any enabling legislation thereof, or pursuant to any similar abbreviated route of approval in any other countries; or (ii) contains the same active ingredient as the Product and is approved for use in such country by a regulatory authority through a regulatory pathway referencing clinical data first submitted by Amgen its Affiliates for obtaining Regulatory Approval for such Product.

Section 1.76 "Global Brand Plan" means, with respect to a given Product, the global, cross-functional commercialization plan for such Product prepared by Amgen, including any applicable Global Payer Plan.

Section 1.77 "Global Development Budget" means the applicable budget prepared by Amgen and reviewed at the JAC and JSC for the Development of each Product in accordance with the applicable Global Development Plan (which budget will be updated by Amgen annually and will cover a period of at least five (5) years).

Section 1.78 "Global Development Cost-Share Payments" has the meaning set forth in Section 7.1.2(a) (Global Development Cost-Share).

Section 1.79 "Global Development Plan" means the applicable global plan prepared by Amgen and submitted to the JAC and JSC for each Product (which plan will be updated annually and will cover a period of at least [*]) covering: (i) the research and development of the Products, including observational research and payer evidence generation (including economic value); (ii) the preparation and submission of Regulatory Filings; and (iii) the obtaining and maintenance of Regulatory Approvals of the Products.

Section 1.80 "Global Distracting Product Royalty Term" means with respect to a Distracting Product on a country-by-country basis the period of time beginning on the First Commercial Sale of such Distracting Product in such country and expiring on the latest of (i) the date on which the Exploitation of such Distracting Product is no longer Covered by a Valid Claim of any Patents owned or exclusively Controlled by Amgen in such country; (ii) the expiration of Regulatory Exclusivity for such Distracting Product in such country; and (iii) the earlier of eight (8) years from the date of First Commercial Sale of such Distracting Product in such country and (y) twenty (20) years from the date of First Commercial Sale of the Product anywhere in the world.

Section 1.81 "Global Payer Plan" means the global plan for a Product prepared by Amgen that sets forth the strategic direction, positioning, value proposition and reimbursement for such Product.

Section 1.82 "Governmental Authority" means any government or supranational administrative agency, commission or other governmental or supranational authority, regulatory body or other instrumentality, or any federal, state, local, domestic or foreign governmental or supranational regulatory body.

Section 1.83 "Government Official" means (i) any official or employee of any Governmental Authority, or any department, agency, or instrumentality thereof (including commercial entities owned or controlled, directly or indirectly, by a Governmental Authority), (ii) any political party or official thereof, or any candidate for political office, in the Collaboration Territory or any other

country, or (iii) any official or employee of any public international organization, or any family member of any of the foregoing individuals identified in the foregoing clauses (i), (ii) and (iii).

Section 1.84 "Healthcare Compliance Requirements" means the healthcare fraud and abuse laws and regulations and industry codes of conduct (for the Collaboration Territory, RDPAC) related to promotional and non-promotional activities concerning a company's pipeline and approved pharmaceutical, biologic and medical device products, transparency and reporting of relationships with and transfers of value to healthcare providers and other members of the healthcare community, coverage, reimbursement, pricing and price reporting for approved pharmaceutical, biologic and medical device products and interactions with healthcare professionals and members of the healthcare community.

Section 1.85 "Housemarks" means the Amgen Housemarks or the BeiGene Housemarks, as the case may be.

Section 1.86 "HSR Act" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (15 U.S.C. § 18a).

Section 1.87 "HSR Filing" means a filing by each of Amgen and BeiGene with the FTC and the DOJ of a Notification and Report Form for Certain Mergers and Acquisitions (as defined in the HSR Act) with respect to the matters set forth in the Share Purchase Agreement, together with all required documentary attachments thereto.

Section 1.88 "Indemnified Party" has the meaning set forth in Section 13.3 (Claim for Indemnification).

Section 1.89 "Indemnifying Party" has the meaning set forth in Section 13.3 (Claim for Indemnification).

Section 1.90 "Indirect Taxes" means value added taxes, business taxes, sales taxes, consumption taxes and other similar taxes, and any surcharge levied on such taxes pursuant to Applicable Law.

Section 1.91 "Infringement or Invalidity Claim" has the meaning set forth in Section 10.8 (Defense and Settlement of Third Party Claims of Infringement and Other Proceedings).

Section 1.92 "In-Line Products" means the products set forth on the Products Schedule under the heading "In-Line Products."

Section 1.93 "Insolvency Event" means, with respect to any Party, the occurrence of any of the following: (i) such Party shall commence a voluntary case concerning itself under any bankruptcy, liquidation or insolvency code; (ii) an involuntary case is commenced against such Party and the petition is not dismissed within sixty (60) days after commencement of the case; (iii) a court-supervised custodian is appointed for, or takes charge of, all or substantially all of the property of such Party or such Party commences any other proceedings under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar law of any jurisdiction whether now or hereafter in effect relating to such Party or there is commenced against such Party any such proceeding which remains undismissed for a period of sixty (60) days; (iv) any order of relief or other order approving any such case or proceeding is entered; (v) such Party is adjudicated insolvent or bankrupt; (vi) such Party suffers any appointment of any court-appointed custodian, receiver or the like for it or all or substantially all of its property to continue undischarged or unstayed for a period of sixty (60) days; (vii) such Party makes a general assignment for the benefit of creditors; (viii) the governing body or executive management of such Party shall make a duly authorized statement that it is unable to pay, or shall be unable to pay, its debts generally as they become due; or (ix) such Party shall call a meeting of its creditors generally with a view to arranging a compromise or adjustment of its debts; or (x) any corporate, limited liability company, partnership or individual action, as applicable, is taken by such Party for the specific purpose of effecting any of the foregoing.

Section 1.94 "International Trade Laws" means all applicable import, export, reexport and foreign trade control statutes, laws, regulations, enactments, directives and ordinances of any Governmental Authority with jurisdiction over any operations or activities of a Party under this Agreement then in effect.

Section 1.95 "Joint Alliance Committee" or "JAC" means the alliance committee established pursuant to Article II (Scope and Governance).

Section 1.96 "Joint Claim" has the meaning set forth in Section 13.4.1 (All Third Party Claims except Infringement and Invalidity Claims).

Section 1.97 "Joint Development Data" has the meaning set forth in Section 3.1.5 (Ownership of Development and Safety Data).

Section 1.98 "Joint Steering Committee" or "JSC" means the steering committee established pursuant to Article II (Scope and Governance).

Section 1.99 "Key Regulatory Filings and Material Communications" means Regulatory Filings and correspondence intended to apply to data driven submissions versus administrative correspondence. Examples of data driven submissions are

Regulatory Filings, responses to questions, briefing books, and minutes to agency meetings.

Section 1.100 "Know-How" means all tangible and intangible techniques, information, technology, practices, trade secrets, inventions (whether patentable or not), methods, processes, knowledge, know-how, conclusions, skill, experience, standard operating procedure, test data and results (including pharmacological, toxicological, manufacturing, and clinical test data and results), regulatory documentation, analytical and quality control data, results or descriptions, software and algorithms, including works of authorship and Copyrights, and materials, including biological materials, compositions and the like. Know-How does not include Patents, Product Trademarks, Amgen Housemarks or BeiGene Housemarks.

Section 1.101 "Losses" has the meaning set forth in Section 13.1 (Indemnity by BeiGene).

Section 1.102 "Manufacture" means all activities related to the manufacturing of a Product, including test method development and stability testing, formulation, process development, manufacturing scale-up, manufacturing for use in non-clinical and clinical studies, manufacturing for commercial sale, packaging, release of product, quality assurance/quality control development, quality control testing (including in-process, in-process release and stability testing) and release of Product or any component or ingredient thereof, and regulatory activities related to all of the foregoing.

Section 1.103 "Manufacturing Actual Costs" means, with respect to a Product (i) the Costs (including Allocable Manufacturing Overhead) to Manufacture such Product including [*] and (ii) [*] under this Agreement. Manufacturing Actual Costs will be calculated consistently with other products manufactured by Amgen and in accordance with GAAP. For clarity, (a) in the event that Amgen uses a contract manufacturer to perform any manufacturing activities under this Agreement, Manufacturing Actual Costs for such activities will be the price Amgen pays such contract manufacturer for such activities, plus the Costs to manage and to process materials obtained from such contract manufacturer, (b) to the extent that any Manufacturing Actual Cost relates to a Product and any other product(s) of Amgen, the Manufacturing Actual Cost will be allocated by Amgen among such Product and other product(s)).

Section 1.104 "Manufacturing Lead" has the meaning set forth in Section 4.1 (Manufacturing Lead).

Section 1.105 "Manufacturing Standard Costs" means, with respect to a Product, the clinical standard cost for such Product as of the time of manufacture as calculated in a manner consistent with Amgen's other products. For clarity, (i) Amgen's internal clinical standard cost methodology for clinical product is calculated [*], and (ii) in the event that Amgen uses a contract manufacturer to perform any Manufacturing activities under this Agreement, Manufacturing Standard Cost for such activities will be the price Amgen pays such contract manufacturer for such activities, plus the Costs to manage and to process materials obtained from such contract manufacturer.

Section 1.106 "Medical Affairs Activities" means design, strategies, oversight and implementation of activities designed to ensure or improve appropriate medical use of, conduct medical education of, or support clinical studies regarding, a Product, as established by the applicable Party's internal policies and procedures and as documented by the applicable Global Development Plan or Commercialization Plan, which includes by way of example: (i) activities of Medical Liaisons; (ii) grants to support continuing independent medical education (including independent symposia and congresses); and (iii) development, publication and dissemination of scientific and clinical information in support of an approved indication for a Product, as well as medical information services (and the content thereof) provided in response to inquiries communicated via the sales representatives or other external-facing representatives or received by letter, phone call or email or other means of communication agreed by the Parties in writing.

Section 1.107 "Medical Affairs Activities Costs" means Costs incurred by a Party and its Affiliates during the Term and pursuant to this Agreement associated with Medical Affairs Activities in the Collaboration Territory to the extent incurred in accordance with the applicable Global Development Budget. For the avoidance of doubt, Medical Affairs Activities Costs with respect to a Product shall be included in [*] until the First Commercial Sale of the Product in the Collaboration Territory and shall be included as [*] thereafter.

Section 1.108 "Medical Liaisons" means those health care professionals employed or engaged by a Party with sufficient health care experience to engage in in-depth dialogues with physicians regarding medical issues associated with a Product and are not sales representatives or otherwise engaged in direct selling or promotion of a Product.

Section 1.109 "Net Present Value Payment" means, with respect to a Pipeline Product, a payment made as a lump sum, which payment will be equivalent to the net present value of the expected cash flows that would have been received and paid (i) [*] and (ii) [*].

Section 1.110 "Net Revenues" means, with respect to a certain period of time, the aggregate of the gross invoiced sales prices for Products that are sold or transferred for value by or for either Party or their respective Affiliates in arms-length

transactions to Third Parties in the Collaboration Territory or the ROW, as applicable (but not including sales relating to transactions between either Party or their respective Affiliates and agents) during such time period, less the total of the following charges or expenses as determined in accordance with GAAP and each to the extent not already deducted when calculating Manufacturing Actual Costs (regardless of the period in which such amounts are incurred or paid):

(a) trade, cash, prompt payment and/or quantity discounts;

(b) returns, allowances, rebates, chargebacks and fees or payments to government agencies, including any amounts imposed or due under Section 9008 of the U.S. Patient Protection and Affordable Care Act of 2010 (Pub. L. No. 111-48);

(c) retroactive price reductions applicable to sales of such Product;

(d) fees paid to distributors, wholesalers, selling agents (excluding any sales representatives of a Party or any of its Affiliates), group purchasing organizations and managed care entities;

(e) credits or allowances for product replacement, whether cash or trade;

(f) non-recovered sales taxes (such as VAT or its equivalent) and excise taxes, other consumption taxes, customs duties and compulsory payments to governmental authorities and any other governmental charges imposed upon the sale of such Product to Third Parties;

(g) [*] included in the gross invoiced sales price; and

(h) [*] percent ([*]%) of gross sales to cover items such as bad debt, freight or other transportation charges, insurance charges, additional special packaging, and other governmental charges.

Section 1.111 "Non-Collaboration Territory Agreement" means any agreement whereby Amgen has granted rights to a Third Party under any intellectual property rights, Know-How, Regulatory Filings or regulatory approvals with respect to a Product outside the Collaboration Territory, and any agreements ancillary thereto, such as a safety agreement.

Section 1.112 "NRDL List Price" means, with respect to a product, the National Reimbursement Drug List price published by the applicable Governmental Authority in the Collaboration Territory.

Section 1.113 "Other Personnel" means any personnel other than Sales Force Representatives performing Commercialization activities as well as Medical Liaisons and access and pricing and field based marketing personnel in or for the Collaboration Territory in accordance with this Agreement.

Section 1.114 "Party" or "Parties" has the meaning set forth in the Preamble.

Section 1.115 "Patent Coordinator" means those employees of each of the Parties appointed to serve as each such Party's primary liaison with the other Party on matters relating to intellectual property as described in this Agreement.

Section 1.116 "Patent Extensions" has the meaning set forth in Section 10.10 (Patent Term Extensions).

Section 1.117 "Patents" means the issued patents and pending patent applications (including certificates of invention, applications for certificates of invention and priority rights) in any country or region, including all provisional applications, refilings, substitutions, continuations, continuations-in-part, divisions, renewals, all letters patent granted thereon, and all reissues, re-examinations and patent term extensions thereof, and all international or foreign counterparts of any of the foregoing (including supplemental protection certificates, patents of addition and the like).

Section 1.118 "Person" means an individual, corporation, partnership, limited liability company, limited partnership, trust, business trust, association, joint stock company, joint venture, pool, syndicate, "group" as defined in Section 13(d)(3) of the Securities Exchange Act of 1934, as amended, sole proprietorship, unincorporated organization, Governmental Authority or any other form of entity not specifically listed herein.

Section 1.119 "Phase 4 Study" means any non-registrational clinical study initiated in the Collaboration Territory for a Product following the first Regulatory Approval for the sale of such Product in the Collaboration Scope for the indication being studied. Phase 4 Studies may include clinical and epidemiological studies, modeling and pharmacoeconomic studies, and post-marketing surveillance studies, as well as any clinical study or research study sponsored and conducted by an individual not employed by or on behalf of either Party.

Section 1.1120 "Pipeline Products" means the product candidates set forth on the Products Schedule under the heading "Pipeline Products."

Section 1.121 "Product" means any pharmaceutical product or product candidate listed on the Products Schedule.

Section 1.122 "Product Intellectual Property" means Amgen Intellectual Property, BeiGene Intellectual Property and Program Intellectual Property.

Section 1.123 "Product Reinstatement Notice Date" has the meaning set forth in 14.7.1.

Section 1.124 "Product Reversion" has the meaning set forth in Section 14.9.3 (Transition Period Obligations).

Section 1.125 "Product Trademarks" means any trademark, trade name or service mark, social media accounts and domain names (whether registered or is being filed for registration) selected by BeiGene in accordance with Section 10.3 (Product Trademarks) to be utilized by BeiGene in the Collaboration Territory (as indicated in the applicable Global Brand Plan) for use on, with, or to refer to a Product (other than Amgen Housemarks and BeiGene Housemarks, as applicable) or used with patient support or other information or services or Promotional Materials associated with a Product in the Collaboration Territory during the Term, and all intellectual property rights residing in the foregoing.

Section 1.126 "Profit" means for each Product in the Collaboration Territory, Net Revenues *minus* Manufacturing Actual Costs, *minus* Commercialization and Related Costs.

Section 1.127 "Program Intellectual Property" means any Know-How, Patents, Product Trademark, trademark application, electronic media registrations (including domain names, usernames, websites, blogs and the like), or Copyrights generated or conceived by Amgen, BeiGene or their respective Affiliates, whether solely or jointly (or together with a Third Party), during the Term as a result of carrying out the Designated Amgen Activities or the Designated BeiGene Activities, as applicable. For clarity, Program Intellectual Property includes (i) Amgen Program Intellectual Property; (ii) Promotional Materials; (iii) training materials relating to Products in the Collaboration Scope; (iv) all information, data and results of Clinical Studies (including Phase 4 Studies) for the Product in the Collaboration Scope, including case report forms and investigator's reports; and (v) safety information for Products in the Collaboration Scope.

Section 1.128 "Promotional Materials" has the meaning set forth in Section 5.6 (Promotional Materials).

Section 1.129 "Proper Conduct Practices" means, in relation to any Person, such Person and each of its Representatives, not, directly or indirectly, (i) making, offering, authorizing, providing or paying anything of value in any form, whether in money, property, services or otherwise to any Government Official or Governmental Authority, or other Person charged with similar public or quasi-public duties, or to any customer, supplier, or any other Person, or to any employee thereof, or failing to disclose fully any such payments in violation of the laws of any relevant jurisdiction to (a) obtain favorable treatment in obtaining or retaining business for it or any of its Affiliates, (b) pay for favorable treatment for business secured, (c) obtain special concessions or for special concessions already obtained, for or in respect of it or any of its Affiliates, in each case which would have been in violation of any Applicable Law, (d) influence an act or decision of the recipient (including a decision not to act) in connection with the Person's or its Affiliate's business, (e) induce the recipient to use his or her influence to affect any government act or decision in connection with the Person's or its Affiliate's business or (f) induce the recipient to violate his or her duty of loyalty to his or her organization, or as a reward for having done so; (ii) engaging in any transactions, establishing or maintaining any fund or assets in which it or any of its Affiliates shall have proprietary rights that have not been recorded in the books and records of it or any of its Affiliates; (iii) making any unlawful payment to any agent, employee, officer or director of any Person with which it or any of its Affiliates does business for the purpose of influencing such agent, employee, officer or director to do business with it or any of its Affiliates; (iv) violating any provision of applicable Anti-Corruption Laws; (v) making any payment in the nature of bribery, fraud, or any other unlawful payment under the Applicable Law of any jurisdiction where it or any of its Affiliates conducts business or is registered; or (vi) if such Person or any of its Representatives is a Government Official or Governmental Authority, improperly using his, her or its position as a Government Official or Governmental Authority to influence the award of business or regulatory approvals to or for the benefit of such Person, its Representatives or any of their business operations, or failing to recuse himself, herself or itself from any participation as a Government Official or Governmental Authority in decisions relating to such Person, its Representatives or any of their business operations.

Section 1.130 "Prosecution and Maintenance" means the preparation, filing, and prosecution of patent and trademark applications and maintenance of patents and trademarks, as well as re-examinations and reissues with respect to patents, together with the conduct of interferences, post-grant proceedings and the defense of oppositions with respect to patent or trademark applications or patents and trademarks; and "Prosecute and Maintain" has the correlative meaning.

Section 1.131 "Quality Agreement" means any quality agreements between the Parties related to Products supplied pursuant to this Agreement for clinical or commercial use. For clarity, "Quality Agreement" shall include any three-party quality agreements among Amgen, BeiGene, and a Third Party contract manufacturer or a Third Party test laboratory.

Section 1.132 "Quality and Compliance Standards" means the quality and compliance standards approved by the JAC (but ultimately subject to Amgen final approval if there are any disagreements) from time to time, including manufacturing standards,

such as international Good Clinical Practices (GCP), international Good Manufacturing Practices (GMP), quality standards, supply chain standards, such as NMPA, international Good Supply Practice (GSP), distribution standards, such as WHO Good Distribution Practice (GDP), safety and healthcare compliance standards and generally accepted national and international pharmaceutical industry codes of practice (including guidelines under the International Conference on Harmonization (ICH)).

Section 1.133 "Recoveries" means all monies received by either Party from a Third Party in connection with the final, non-appealable judgment (or judgment with respect to which the time period for appeal has expired), award or settlement of any enforcement with respect to any Product Intellectual Property, to the extent such judgment, award or settlement pertains to activities within the Collaboration Scope.

Section 1.134 "Referenceable List Price" means, with respect to a Product, [*].

Section 1.135 "Regulatory Approval" means an approval for a Product or a Distracting Product, as applicable, from a regulatory authority necessary for the marketing or sale of such Product or a Distracting Product, as applicable.

Section 1.136 "Regulatory Exclusivity" means, with respect to a Product or a Distracting Product, as applicable, in a country, any exclusive marketing rights or data exclusivity rights conferred by any Governmental Authority in such country with respect to the Product or Distracting Product, as applicable, other than a Patent.

Section 1.137 "Regulatory Authority(ies)" means the National Medical Products Administration (NMPA), and any successor agencies thereto.

Section 1.138 "Regulatory Filing" means any filing with any regulatory authority with respect to the research, development, manufacture, distribution, pricing, reimbursement, marketing or sale of a Product. For clarity, the term "Regulatory Filing" shall not mean, or apply to, any submission to any regulatory authority of adverse event reports, periodic safety reports, or other similar safety submissions, which shall each be governed by the Safety Agreement.

Section 1.139 "Regulatory Lead" has the meaning set forth in Section 3.2.1.

Section 1.140 "Renminbi" or "RMB" means the lawful currency of the Collaboration Territory.

Section 1.141 "Representatives" means, as to any Person, such Person's Affiliates and its and their successors, controlling Persons, directors, officers and employees.

Section 1.142 "Retained In-Line Product" has the meaning set forth in Section 5.1.5(a).

Section 1.143 "Retained Pipeline Product(s)" has the meaning set forth in Section 5.1.5(b).

Section 1.144 "Reverse Transition Services Agreement" has the meaning set forth in Section 5.1.4.

Section 1.145 "ROW" means all countries in the world other than the Collaboration Territory.

Section 1.146 "Safety Agreement" means any safety agreements between the Parties regarding adverse event reporting with respect to Products manufactured by Amgen pursuant to this Agreement.

Section 1.147 "Sales Force" or "Sales Force Representatives" means all sales force representatives that Commercialize the Product in the Collaboration Territory in accordance with this Agreement.

Section 1.148 "Sales Force Costs" means BeiGene's or any of its Affiliates' Costs for the Sales Force in or for the Collaboration Territory, calculated in accordance with Section 5.7.3 (Calculation of Sales Force Costs and Other Personnel Costs).

Section 1.149 "Sales Force FTE" means a full-time equivalent Sales Force Representative (i.e., one fully-dedicated or multiple partially-dedicated Sales Force Representatives aggregating to one full-time sales representative employed or contracted by BeiGene based upon a total of [*] per calendar year. Overtime, and work on weekends, holidays and the like shall not be counted with any multiplier (e.g., time-and-a-half or double time) toward the number of hours that are used to calculate the Sales Force FTE contribution. Sales Force FTE also includes full-time equivalent sales managers (district sales managers, regional sales managers, national sales managers) with direct management responsibility for sales representatives.

Section 1.150 "Sales Force FTE Rate" means for any Sales Force Representative of BeiGene [*], increasing by the rate of [*] on each January 1st beginning on January 1, 2021. The Sales Force FTE Rate includes costs associated with salaries, payroll taxes, bonuses, benefits, recruiting, relocation, employee stock option programs or stock grants, retirement programs, and applicable overhead (e.g., facilities, operating supplies, travel and training).

Section 1.151 "Sanctioned Country" means Cuba, Iran, Syria, North Korea, and the Crimea Region of Ukraine, and any other country or region subject to comprehensive sanctions under U.S., Swiss, or China law.

Section 1.152 "Sanctioned Person" means any natural or legal person (i) identified on the Specially Designated Nationals and Blocked Persons List administered by the U.S. Department of Treasury Office of Foreign Assets Control (OFAC), on the Entity List, the Unverified List, or the Denied Persons List administered by the U.S. Department of Commerce Bureau of Industry and Security (BIS), or on any equivalent lists maintained by the United Nations; (ii) fifty percent (50%) or greater owned, directly or indirectly, in the aggregate, or otherwise controlled by a person or persons described in clause (i); or (iii) that is organized, resident, or located in a Sanctioned Country.

Section 1.153 "Scientific Exchange" means the provision of scientific support and scientific information to health care providers and other relevant stakeholders in the Collaboration Territory (it being understood and agreed that there will be a clear distinction between Promotional Material and medical information requests, in compliance with local regulations).

Section 1.154 "Segregate" means, with respect to two (2) programs: (i) to restrict and prevent all program-related contacts and communications between personnel (whether employees, consultants, Third Party contractors or otherwise and whether or not located within the Collaboration Territory (for the purposes of this definition, "Personnel")) working on or involved with the development or commercialization of the first program and Personnel working on or involved with the development or commercialization of the second program; (ii) to ensure that Personnel that are working on the first program will not simultaneously work on the second program and vice versa; (iii) to ensure that confidential information relating to the first program is not shared with or accessed by Personnel that are working on the second program and vice versa; and (iv) from time-to-time, upon the reasonable request of the Affected Party, to provide information requested relating to the foregoing items (i) through (iii), and to reasonably cooperate to enable the Affected Party to verify that such restrictions are in place and sufficient to achieve the foregoing. For clarity, the foregoing restrictions will not prevent employees of the Distracted Party that are general managers or that are at or above the vice president level from providing high-level oversight of both programs, *provided* that such employees do not perform day-to-day responsibilities for either program and that the Distracted Party ensures such employees understand and comply with their obligations of confidentiality and non-use as set forth herein.

Section 1.155 "Supply Agreement" means any supply agreements between the Parties regarding the clinical or commercial supply of Products manufactured by Amgen pursuant to this Agreement (which Supply Agreement shall be subject to the terms and conditions included in the Supply Term Sheet Schedule).

Section 1.156 "Supply Price" means, with respect to a unit of Product, [*].

Section 1.157 "Supply Price Percentage" has the meaning set forth in Section 1.156 ("Supply Price").

Section 1.158 "Suspended Product" means any Product for which (i)(a) [*] and (b) Amgen and its Affiliates have [*] if and only if, Amgen and its Affiliates [*] or (ii) Amgen and its Affiliates have [*].

Section 1.159 "Taxes" means any direct or indirect tax, excise or duty and any surcharge thereon levied by any Governmental Authority in accordance with Applicable Law.

Section 1.160 "Technical Feasibility" means, with respect to any manufactured Product, the first date on which, in the good-faith determination of Amgen, there is a high probability that (i) such Product will obtain Regulatory Approval and (ii) the related costs will be recoverable through the Commercialization of such manufactured Product.

Section 1.161 "Term" means, on a Product-by-Product basis, the period commencing on the Effective Date and continuing in perpetuity unless terminated by either Party pursuant to this Agreement.

Section 1.162 "Third Party" means any Person that is not a Party, or an Affiliate of a Party.

Section 1.163 "Third Party Claim" means any claim, action, lawsuit, or other proceeding brought by any Third Party. Third Party Claim includes any Infringement or Invalidity Claim.

Section 1.164 "Third Party IP Payments" has the meaning set forth in Section 1.39(l).

Section 1.165 "Transition Services Agreement" has the meaning set forth in Section 5.1.2(b).

Section 1.166 "United States" or "U.S." means the United States of America and its territories and possessions.

Section 1.167 "US$" means United States Dollars, the lawful currency of the United States.

Section 1.168 "Valid Claim" means (a) any claim of an issued and unexpired Patent owned or exclusively Controlled by Amgen that has not been disclaimed, abandoned or dedicated to the public or held unenforceable, unpatentable, invalid or revoked by a decision of a court or governmental agency of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal or (b) a pending claim of an unissued, pending patent application, which application has not been pending for more than [*] since its earliest claimed priority date.

Section 1.169 "Withholding Party" has the meaning set forth in Section 8.6.1 (Withholding).

ARTICLE II.

SCOPE AND GOVERNANCE

Section 2.1 Purpose of the Collaboration. The purpose of the collaboration is for the Parties to collaborate in the Commercialization of the In-Line Products and Development and Commercialization of the Pipeline Products in the Collaboration Scope, all as described in more detail herein. It is the intent of the Parties that, regardless of the Party with the primary responsibility for execution of the Collaboration Activity or the Party holding the tie-breaking vote with respect to any matter, both Parties will actively collaborate in the conduct of the regulatory, Development, Commercialization, government affairs, distribution, compliance, financial oversight and audit activities hereunder within the Collaboration Territory. Notwithstanding the immediately preceding sentence, Amgen will have sole responsibility for manufacturing of the Products and, subject to the express terms of Article IX (Intellectual Property), prosecution, maintenance and enforcement of intellectual property. With respect to all activities and expenses reported under this Agreement, each Party covenants and agrees to reasonably, fairly and accurately reflect the underlying substance of such activities and expenses.

Section 2.2 Committees and Teams.

2.2.1 Formation. Promptly but not later than sixty (60) days following the Effective Date, the Parties will establish (i) a single, cross-functional Joint Steering Committee ("JSC"); and (ii) a single, cross-functional Joint Alliance Committee ("JAC"). The JSC and the JAC will each have the right to establish subcommittees or working teams with respect to issues within its area of responsibility as it sees fit (e.g., Product-based, development, regulatory, access, manufacturing, commercial, finance or operations).

2.2.2 Membership. The JSC will be comprised of six (6) members, three (3) appointed by each of the Parties or such other number of members as agreed by the Parties. The JSC will be led by two (2) co-chairs, one (1) appointed by each of the Parties. The initial members of the JSC are listed in Initial JSC Membership Schedule attached hereto. Each Party will designate such number of members to the JAC as it deems appropriate in order to accomplish the activities for which it is responsible. Each Party will ensure that the JSC and JAC members appointed by it have (i) the appropriate level of seniority and decision-making authority commensurate with the responsibilities of the committee or team to which they are appointed, and (ii) a range of expertise in the development, manufacture and commercialization of therapeutic products to enable an efficient cross-functional committee or team structure. Each Party will have the right to replace its committee or team members by written notice to the other Party. In the event any committee or team member becomes unwilling or unable to fulfill his or her duties hereunder, the Party that appointed such member will promptly appoint a replacement by written notice to the other Party.

2.2.3 Meetings. The JSC will meet semi-annually, via teleconference or videoconference or otherwise (with at least one (1) meeting per calendar year being in person), or as otherwise agreed by the Parties. Any in-person meetings of the JSC will be held on an alternating basis between BeiGene's offices located in Shanghai or Beijing, and Amgen's headquarters, unless otherwise agreed by the Parties. Each Party will be responsible for its own expenses relating to such JSC and JAC meetings and relating to any subcommittees or working teams. Either Party may also call for special meetings of the JSC or JAC as reasonably required to resolve a Critical Matter escalated to the JSC pursuant to Section 2.3.2 or the JAC pursuant to Section 2.4.3 (JAC Deadlocks); *provided* that the requesting Party provides at least ten (10) business days' prior written notice to the co-chair of the JSC or JAC appointed by the other Party and such notice includes a proposed agenda for such meeting. The JAC and each subcommittee established hereunder will establish a meeting frequency and meeting protocol necessary to coordinate and conduct the activities for which it is responsible, as agreed by the Parties. As appropriate, other employee representatives of the Parties may attend such meetings as non-voting participants, but no Third Party personnel may attend unless otherwise agreed by the Parties. All committee meetings must have at least two (2) members appointed by each Party in attendance. All documents (including Global Development Plans, Global Development Budgets, Commercialization Plans, Commercialization Budgets, Clinical Study protocols, regulatory filing plans, Global Brand Plans, and Access and Pricing Plans) for such committee and team meetings for the collaboration will be in English, unless otherwise agreed by the Parties. The co-chairs of each of the JAC and the JSC shall ensure the preparation and issuance of written minutes of each meeting within thirty (30) days thereafter accurately reflecting the discussions and decisions of such meeting.

2.2.4 Decision-Making. Subject to the terms of this Agreement (including Sections 2.4.3 (JAC Deadlocks) and 2.3.2 (JSC Deadlocks)), the decisions of the JSC, JAC and any subcommittees established hereunder will be made by consensus of the members thereof, with each Party having one (1) vote. The Parties will mutually agree on the Quality and Compliance Standards

from time to time and the Parties' compliance therewith, *provided* that in the event of any disagreement related to such Quality and Compliance Standards, such matter shall be escalated to the JSC and Amgen shall, after consultation with the JSC, have the tie-breaking vote on such matter. Notwithstanding anything to the contrary herein, Amgen shall retain all decision rights with respect to its Global Development Plan and, except as expressly provided herein or otherwise agreed by the Parties for activities in the Collaboration Territory, with respect to global development activities with respect to In-Line Products and Pipeline Products.

Section 2.3 Joint Steering Committee.

2.3.1 Responsibilities. Both Parties shall be entitled through the JSC to actively participate in matters related to the development of, distribution and commercialization of, and government affairs, compliance and regulatory matters related to, the Products in the Collaboration Territory (regardless of which Party has tie-breaking decision making rights). Specifically, the JSC will (i) oversee the activities of the Parties hereunder generally, JAC and any subcommittees or working teams established hereunder, (ii) establish subcommittees and working teams as necessary to coordinate and conduct its activities hereunder, and (iii) be responsible for:

(a) the following development and regulatory matters: (i) reviewing Amgen's Global Development Plan and Global Development Budget for each Product in the Collaboration Territory and annual updates thereto; and (ii) making such decisions as are specified in Article III (Development and Regulatory) to be made by the JSC;

(b) the following operations matters: making such decisions as are specified in Article IV (Manufacturing) to be made by the JSC; and

(c) the following commercialization matters: (i) reviewing Amgen's Global Brand Plan; (ii) reviewing and approving the Commercialization Plan, Commercialization Budgets and Access and Pricing Plan for the applicable Product prepared by BeiGene and annual updates thereto, prior to the end of each calendar year with final approval by the end of the last month of the then-current year; (iii) reviewing the global launch of Products; and (iv) making such decisions as are specified in Article V (Commercialization) to be made by the JSC.

2.3.2 JSC Deadlocks.

(a) Non-Critical Matters. If the JSC is unable to reach consensus on a non-Critical Matter, the decision will be made by the members of the JSC, (i) appointed by BeiGene if such matter is primarily related to Commercialization (including [*], promotion, marketing, market access and reimbursement) (except as otherwise provided for under Section 5.6 (Promotional Materials)) or Distribution (subject to (ii) below and except as otherwise provided for under Section 4.4 (Distribution) and Section 6.6 (Use of Affiliates and Third Party Contractors)) of the Products in the Collaboration Scope, (ii) appointed by Amgen if such matter is primarily related to Manufacturing (including product quality), safety or compliance matters (including Quality and Compliance Standards and Applicable Law and compliance with any of the foregoing), (iii) appointed by Amgen if such matter is primarily related to the Development of the Products in the Collaboration Territory, and (iv) appointed by BeiGene if such matter is primarily related to a regulatory matter with respect to the Products in the Collaboration Territory (including the timing of Regulatory Filings and listing of indications in Regulatory Filings), in each case so long as such decision is consistent with the applicable Commercialization Plan, Access and Pricing Plan, Commercialization Budget, Global Brand Plan, Global Development Plan and Global Development Budget.

(b) Critical Matters. If the JSC is unable to reach consensus on any Critical Matter, the members of the JSC appointed by either Party will have the right to require that such issue be escalated to the Designated Officers for determination; *provided* that if, in the good faith determination of either Party, resolution of such Critical Matter requires exigent action pursuant to Applicable Law or to prevent a material adverse effect on a Product or a Party or patients, (i) the members of the JSC appointed by BeiGene will have the right to make an interim decision pending Designated Officer determination if such matter is primarily related to Commercialization (including pricing that is above the Applicable Retail Baseline Price, promotion, marketing, market access and reimbursement) (subject to (ii) below and except as otherwise provided for under Section 5.6 (Promotional Materials)) or Distribution (except as otherwise provided for under Section 4.4 (Distribution) and Section 6.6 (Use of Affiliates and Third Party Contractors)) of the Products in the Collaboration Territory, (ii) the members of the JSC appointed by Amgen will have the right to make an interim decision pending Designated Officer determination if such matter is related to Manufacturing (including product quality), safety or compliance matters (including Quality and Compliance Standards and Applicable Law and compliance with any of the foregoing), (iii) the members of the JSC appointed by Amgen will have the right to make an interim decision pending Designated Officer determination if such matter is related to Development with respect to the Products in the Collaboration Territory and (iv) the members of the JSC appointed by BeiGene will have the right to make an interim decision pending Designated Officer determination if such matter is related to regulatory matters with respect to the Products in the Collaboration Territory, in each case

so long as such decision is consistent with the applicable Commercialization Plan, Access and Pricing Plan, Commercialization Budget, Global Brand Plan, Global Development Plan and Global Development Budget.

Section 2.4 Joint Alliance Committee.

2.4.1 Responsibilities. Except for decisions expressly reserved to the JSC pursuant to Section 2.3 (Joint Steering Committee), the JAC will (a) establish subcommittees and working teams as is necessary to coordinate and conduct its activities hereunder; (b) coordinate with and oversee the activities of any such subcommittees and working teams; and (c) be responsible for coordinating all operational matters regarding the Development, Manufacture and Commercialization of the Products in the Collaboration Territory, including:

(a) the following Development and regulatory matters: (i) reviewing Amgen's Global Development Plan with respect to the applicable Product in the Collaboration Territory and annual updates (or any other updates) thereto; (ii) preparing the [*] expense budget for Commercialization activities set forth in the Commercialization Plan, including a schedule of FTE expenses (the "Commercialization Budget") and annual updates (or any other updates) thereto; (iii) reviewing the clinical research organizations (CROs) to be engaged in conjunction with the development of the applicable Product and study design and protocols for Clinical Studies in the Collaboration Territory for such Product; (iv) providing for communication and discussion between the Parties to optimize the efficacy and safety of the Development of such Product in the Collaboration Territory; (v) reviewing and monitoring the activities and progress against the Global Development Plan and any Commercialization Plan; (vi) proposing observational research and any payer and economic value evidence generation plans for inclusion in the Global Development Plan; (vii) reviewing requirements for clinical supplies of the Products in the Collaboration Territory; (viii) communicating with the Parties regarding all of the foregoing; and (ix) making such decisions as are specified in Article III (Development and Regulatory) to be made by the JAC;

(b) the following operations matters: (i) overseeing supply of the applicable Product for the Collaboration Territory (in accordance with the applicable Quality Agreement); (ii) reviewing the portion of the [*] Global Development Budget prepared by Amgen for manufacturing activities to be undertaken with respect to Collaboration Activities for such Product in the Collaboration Territory and annual updates (or any other updates) thereto; (iii) reviewing other operational issues relating to the manufacture, quality (based on the quality control data of such Product that Amgen shall provide reasonably in advance of the expected date of filing for Regulatory Approval in the Collaboration Territory) or supply of such Product for the Collaboration Territory and any related devices; (iv) reviewing matters related to the Clinical Studies for the Products in the Collaboration Territory, including inspection and audit findings; and (v) making such decisions as are specified in Article IV (Manufacturing) to be made by the JAC;

(c) the following Commercialization matters: (i) reviewing Amgen's Global Brand Plan for the applicable Product and annual updates (or any other updates) thereto; (ii) reviewing the Commercialization Plan, Commercialization Budget, and Access and Pricing Plan for the applicable Product prepared by BeiGene and annual updates (or any other updates) thereto; (iii) establishing a process for reviewing and commenting on Promotional Materials and training materials and programs for each Product for the Collaboration Scope; and (iv) making such decisions as are specified in Article V (Commercialization) to be made by the JAC; and

(d) overseeing and coordinating other activities described in the definitions of "Development Costs" and "Commercialization and Related Costs," related to the Collaboration Territory.

2.4.2 Information Sharing. Each Party will provide, through its participation in the JAC, information on the status and progress of Collaboration Activities, including information such as progress versus plan, spend versus budget, notable protocol deviations and safety and efficacy findings and inspection and audit findings. In addition, each Party shall promptly make available to the other Party such information about material Collaboration Activities as may be reasonably requested by the other Party.

2.4.3 JAC Deadlocks. If the JAC is unable to reach consensus on a non-Critical Matter, the decision will be made by the members of the JAC (i) appointed by BeiGene if such matter is primarily related to Commercialization (e.g., [*], promotion, marketing, market access and reimbursement) (except as otherwise provided for under Section 5.6 (Promotional Materials)) or Distribution (except as otherwise provided for under Section 4.4 (Distribution) and Section 6.6 (Use of Affiliates and Third Party Contractors)) of the Products in the Collaboration Scope, (ii) appointed by Amgen if such matter is primarily related to Manufacturing (including product quality), safety or compliance matters (including Quality and Compliance Standards, the Core Data Sheet, and Applicable Law and compliance with any of the foregoing), (iii) appointed by Amgen if such matter is primarily related to a Development matter with respect to the Products in the Collaboration Territory, and (iv) appointed by BeiGene if such matter is primarily related to a regulatory matter with respect to the Products in the Collaboration Territory, in each case so long as such decision is consistent with the Global Development Plan, Global Brand Plan, applicable Commercialization Plan, Access and Pricing Plan, and Commercialization Budget. If the JAC is unable to reach consensus on any Critical Matter, the members of the

JAC appointed by either Party will have the right to require that such issue be escalated to the JSC for determination; *provided* that if, in the good faith determination of either Party, resolution of such Critical Matter requires exigent action pursuant to Applicable Law or to prevent a material adverse effect on a Product or a Party or patients, (a) the members of the JAC appointed by BeiGene will have the right to make an interim decision pending JSC determination if such matter is primarily related to Commercialization (except as otherwise provided for under Section 5.6 (Promotional Materials)) or Distribution matters (except as otherwise provided for under Section 4.4 (Distribution) and Section 6.6 (Use of Affiliates and Third Party Contractors)) with respect to the Products in the Collaboration Territory, (b) the members of the JAC appointed by Amgen will have the right to make an interim decision pending JSC determination if such matter is primarily related to Manufacturing (including product quality), safety or compliance matters (including Quality and Compliance Standards and Applicable Law and compliance with any of the foregoing), (c) the members of the JAC appointed by Amgen will have the right to make an interim decision pending JSC determination if such matter is primarily related to Development matters with respect to the Products in the Collaboration Territory, and (d) the members of the JAC appointed by BeiGene will have the right to make an interim decision pending JSC determination if such matter is primarily related to regulatory matters with respect to the Products in the Collaboration Territory, in each case so long as such decision is consistent with the applicable Commercialization Plan, Access and Pricing Plan, Commercialization Budget, Global Brand Plan, Global Development Plan and Global Development Budget.

Section 2.5 Designated Officers. Either Party may call for a special meeting of the Designated Officers reasonably required in order to resolve a Critical Matter escalated to the Designated Officers pursuant to Section 2.3.2 (JSC Deadlocks) above; *provided* that the requesting Party provides at least ten (10) business days' prior written notice to the co-chair of the JSC appointed by the other Party and such notice includes a proposed agenda for such meeting. For clarity, all decisions of the Designated Officers will be made by consensus, except with respect to compliance, product safety or quality matters (which will be made by the Amgen Designated Officer). Notwithstanding anything in this Section 2.5 to the contrary, BeiGene shall not be required to sell Products or otherwise distribute Products in the Collaboration Territory if it, in good faith, believes that there is a significant concern involving (i) patient safety, (ii) product quality or (iii) a material intellectual property constraint on such Products.

Section 2.6 Reporting. Each Party will keep the applicable committee or team informed of key progress and key results of activities for which it is responsible or that it is permitted to conduct hereunder through its members on such committee or team and as otherwise provided herein.

Section 2.7 No Authority to Amend or Modify. Notwithstanding anything herein to the contrary, neither the JSC, the JAC or any other committee or team will have any authority to amend, modify or waive compliance with this Agreement or any other agreement between the Parties.

Section 2.8 Alliance Managers. Promptly after the Effective Date, each Party will appoint a person who will oversee interactions between the Parties between meetings of the committees and teams established hereunder (each, an "Alliance Manager"). The Alliance Mangers will have the right to attend all meetings of the JSC, the JAC and any subcommittees and working teams established hereunder, as non-voting participants at such meetings. Each Party may in its sole discretion replace its Alliance Manager at any time by notice in writing to the other Party.

Section 2.9 Non-Collaboration Territory Activities.

2.9.1 No Rights Outside Collaboration Territory. BeiGene acknowledges that, notwithstanding anything in this Agreement to the contrary, (i) other than the right to royalties on the Pipeline Products for the ROW, no rights are granted hereunder to BeiGene with respect to any Product in any country outside the Collaboration Territory, and (ii) that BeiGene will have no authority with respect to the research, development, manufacture or commercialization of, or any regulatory or safety matters concerning, any Product outside the Collaboration Territory. As between the Parties, Amgen or its licensees will have the sole right to research, develop, manufacture and commercialize Products outside the Collaboration Territory.

2.9.2 Non-Collaboration Territory Agreements. Amgen shall be permitted to share with any Third Party that is a counter-party under a Non-Collaboration Territory Agreement any Program Intellectual Property, regulatory filings, regulatory approvals, safety data, clinical data, and results for the Products as necessary for Amgen to comply with its obligations under any such Non-Collaboration Territory Agreement. BeiGene shall provide Program Intellectual Property to Amgen as reasonably requested by Amgen in order for Amgen to fulfill its obligations under any such Non-Collaboration Territory Agreement. Amgen shall use good faith reasonable efforts to obtain from any Third Party that is a counter-party under a Non-Collaboration Territory Agreement a similar right to use such Third Party's intellectual property, data and results for a Product generated outside the Collaboration Territory for use by the Parties in the Collaboration Territory. For clarity, nothing in this Section 2.9.2 shall prohibit BeiGene from contracting for services with a Third Party that is located outside the Collaboration Territory, and sharing with such Third Party any safety data, clinical data, and results for the Products, to the extent necessary for such Third Party to provide such services; *provided*

that such Third Party is providing services related to BeiGene's obligations under this Agreement with respect to the Products and such Third Party is approved in accordance with Section 6.6.

ARTICLE III.

DEVELOPMENT AND REGULATORY

Section 3.1 Development Matters.

3.1.1 Transition and Development of Products. Amgen shall (i) transition the mutually agreed upon Development activities with respect to each Product pursuant to the Initial Product Transition Services Schedule or a transition plan and timeline agreed upon by the JAC within thirty (30) days following the Effective Date, as applicable, and (ii) no later than thirty (30) days following the Effective Date, provide to the JSC an initial Global Development Plan and Global Development Budget for each of the Products. Amgen and BeiGene will collaborate on the Development of the Products in the Collaboration Territory in accordance with the applicable Global Development Plan and Global Development Budget.

3.1.2 Development Lead. Amgen will oversee Development activities for all Products in the Collaboration Scope; *provided* that the Parties will collaborate on a local development strategy and plan in the Collaboration Territory and BeiGene will oversee the conduct of mutually-agreed-upon Development activities in or for the Collaboration Territory, in each case, in alignment with the Global Development Plan and Global Development Budget. In order to meet Amgen's requirements for data security, integrity and compatibility, prior to the transition of Development activities for each of the Pipeline Products pursuant to Section 3.1.1, all Development activities of BeiGene which will contribute to the global database for a Product must be conducted using Amgen systems, processes and policies, including quality and compliance systems, standard operating procedures, processes and policies, unless otherwise mutually agreed. Each Party will use Commercially Reasonable Efforts to conduct the Development activities assigned to it pursuant to the foregoing.

3.1.3 Selection and Engagement of CROs. The selection and engagement of one or more contract research organizations ("CROs") that are to be used for Development activities for Products specific to the Collaboration Territory will be approved by the JAC, subject to Section 2.4.3 (JAC Deadlocks).

3.1.4 Sharing of Materials. In the event that it becomes necessary for one Party to provide the other Party with tangible research or biological materials (other than a Product for clinical or commercial use), the Parties will enter into an appropriate material transfer agreement related thereto, which agreement will be subject to this Agreement and will be interpreted consistent with the terms hereof.

3.1.5 Ownership of Development and Safety Data. The Parties shall jointly own all clinical data generated during the Term by the Parties or their respective designees in Development activities conducted hereunder pursuant to the performance of Collaboration Activities ("Joint Development Data"); *provided* that such Joint Development Data shall constitute Amgen Program Intellectual Property and be licensed to BeiGene under Section 10.5 (License Grant by Amgen), as applicable, and may be used by Amgen in the filing of Patents. Notwithstanding the foregoing, as between the Parties, Amgen will own the global safety database for each Product throughout the Product's lifecycle, including Commercialization. Amgen shall provide to BeiGene such information from the safety data base as required to satisfy BeiGene's legal obligations, or as provided under the terms of any Safety Agreement for use by BeiGene in connection with this Agreement. Amgen shall retain copies of Clinical Study data, non-clinical data, and manufacturing data of Products for a period of at least [*] after receipt of Regulatory Approval in the Collaboration Territory for such Product or such longer period as required by Applicable Law. Notwithstanding the foregoing, BeiGene shall not use any Joint Development Data other than to exercise its rights or perform its obligations under this Agreement.

Section 3.2 Regulatory Matters.

3.2.1 Transition to Support Regulatory Activities in the Collaboration Territory . Amgen shall transition the regulatory activities related to the Products pursuant to the Initial Product Transition Services Schedule or a transition plan and timeline agreed at the JAC within thirty (30) days following the Effective Date, as applicable.

3.2.2 Regulatory Lead. BeiGene shall be the regulatory lead for all Products in the Collaboration Territory and ensure alignment with Amgen's global strategy with respect to the applicable Product and Amgen shall be the regulatory lead for all Products in the ROW (each of BeiGene and Amgen in such capacity, the "Regulatory Lead" and the other Party, the "Non-

Regulatory Lead"). Amgen shall be the Marketing Authorization Holder for all Products in the Collaboration Territory. BeiGene shall be the local legal representative of Amgen for all Products in the Collaboration Territory and BeiGene shall be the main point of contact for the regulatory relationship and communications with Regulatory Authorities within the Collaboration Territory. The nature and objectives of each communication with Regulatory Authorities shall be consistent with the Global Development Plan and Amgen's manufacturing specifications. Each Party will use Commercially Reasonable Efforts to conduct the activities assigned to it pursuant to the foregoing. BeiGene shall organize and attend meetings with Regulatory Authorities solely with respect to the Products and Development thereof in the Collaboration Territory to identify and review issues as set forth in Section 3.2.5 (Regulatory Meetings). In order to meet Amgen's requirements for data security, standardization, integrity and compatibility, all activities of BeiGene to generate, review and compile regulatory submissions for the Products will be conducted using Amgen systems, processes and policies, including quality and compliance systems, standard operating procedures, processes and policies, unless otherwise mutually agreed.

3.2.3 Regulatory Communications and Filings.

(a) BeiGene will prepare, submit and maintain Regulatory Filings, leveraging where appropriate global documentation that Amgen has provided, and obtain all Regulatory Approvals for Products in the Collaboration Territory in accordance with the applicable Global Development Plan and Commercialization Plan, and Applicable Law in the Collaboration Territory. The Parties will cooperate with each other with respect to any regulatory matters with respect to Products in a manner sufficient to enable the Parties to satisfy any reporting obligations to Governmental Authorities or other reasonable business purpose related to the Products. All development, review and compilation of Regulatory Filings by BeiGene shall be performed within the Amgen systems.

(b) With respect to Products and the Collaboration Territory, unless exigent action is required with respect to any Key Regulatory Filings and Material Communications, the Regulatory Lead will provide the Non-Regulatory Lead with copies of all Key Regulatory Filings and Material Communications prior to submission within a reasonable amount of time (but not less than [*]) to allow the Non-Regulatory Lead to review and comment on such Key Regulatory Filings and Material Communications, and the Regulatory Lead will ensure inclusion of all substantive comments and proposed revisions from the Non-Regulatory Lead in good faith prior to submission. In the event of a disagreement between the Parties with respect to such comments and proposed revisions, if the Regulatory Lead's determination: (i) is consistent with [*], and the applicable regulations in the Collaboration Territory, (ii) [*] and (iii) [*], then the Regulatory Lead's determination shall prevail; otherwise such disagreement shall be escalated to the JAC.

(c) In the case of an exigent action, the Regulatory Lead shall use reasonable efforts to notify the Non-Regulatory Lead prior to making any such Key Regulatory Filing and Material Communications for the Products in the Collaboration Territory and, thereafter, the Regulatory Lead shall use reasonable efforts to provide the Non-Regulatory Lead with a copy (and if applicable an English translation) of such Key Regulatory Filings and Material Communications within [*] after making such Key Regulatory Filings and Material Communications. For the purpose of this Section 3.2.3, "exigent action" shall mean an action that, in the good faith determination of the Regulatory Lead, requires attention on an expedited basis that doesn't allow for advance copies of Key Regulatory Filings and Material Communications required by the immediately preceding sentence.

(d) With respect to Products in the Collaboration Territory, the Regulatory Lead (i.e., BeiGene) will consult with the Non-Regulatory Lead regarding, and keep the Non-Regulatory Lead informed of, the status of the preparation of all Regulatory Filings it submits, Regulatory Authority review of any such Regulatory Filings, and all Regulatory Approvals that it obtains with respect to a Product in the Collaboration Territory. With respect to Products in the Collaboration Territory, the Regulatory Lead will provide to the Non-Regulatory Lead copies of all final Regulatory Filings it submits promptly after submission thereof via the Amgen systems. Additionally, with respect to Products in the Collaboration Territory, the Regulatory Lead will provide to the Non-Regulatory Lead copies of all Key Regulatory Filings and Material Communications from the applicable Regulatory Authority via the Amgen systems.

3.2.4 Modules of the CTD. In the Collaboration Territory, the Regulatory Lead shall be responsible for preparing and submitting the Common Technical Document (CTD) to the Regulatory Authority as agreed in the filing plan.

3.2.5 Regulatory Meetings. In the Collaboration Territory, the Regulatory Lead will consult with the Non-Regulatory Lead reasonably in advance of the date of any anticipated meeting regarding a Product with a Regulatory Authority and will consider any timely recommendations made by the Non- Regulatory Lead in preparation for such meeting. Upon the Non-Regulatory Lead's reasonable request, at least [*] of the Non-Regulatory Lead shall attend such meetings between the Regulatory Lead and the applicable Regulatory Authority, to the extent permitted by such Regulatory Authority. The Regulatory Lead shall provide to the Non-Regulatory Lead a summary of any meeting with the Regulatory Authority not attended by the Non-Regulatory Lead.

3.2.6 Regulatory Filings and Regulatory Approvals. All Regulatory Filings and Regulatory Approvals will be held in the

name of Amgen. On behalf of Amgen, BeiGene shall be responsible for obtaining and maintaining Regulatory Filings and Regulatory Approvals, including any renewal thereof, via the Amgen systems.

3.2.7 Safety Agreement. BeiGene shall be responsible for fulfilling all pharmacovigilance requirements in the Collaboration Territory, including adverse event intake and reporting, post-marketing patient registries, and product complaint reporting, management of local labeling documents, unless, and only to the extent, otherwise required by Applicable Law, and Amgen shall provide any reasonable assistance requested by BeiGene in connection therewith, including incorporating safety monitoring and reporting for the Collaboration Territory in the overall pharmacovigilance activities; *provided* that with respect to XGEVA®, BeiGene shall only be responsible for the foregoing upon the date of completion of the transition services to be conducted by the Parties for XGEVA® set forth in the Transition Services Agreement. Upon the reasonable request by either Party and, if so requested, as soon as is necessary but no later than thirty (30) days after the Effective Date, the Parties shall enter into a Safety Agreement with respect to Product supplied by Amgen to BeiGene for clinical or commercial use. Any such Safety Agreement shall define the global safety database holder for each Product and define the safety governance process to be used by the Parties and be on commercially reasonable terms and sufficient to enable the Parties to fulfill their respective regulatory reporting obligations under Applicable Law.

3.2.8 BeiGene's Consulting Support and Advice. BeiGene shall provide reasonable consulting support and advice to Amgen in conjunction with Regulatory Filings and meetings with Regulatory Authorities related to the Products.

Section 3.3 Sharing of Data and Know-How. Each Party shall (and shall cause its Affiliates to) reasonably cooperate with the other Party to promptly share and provide access to (i) all Clinical Study data and results for the Products required to support regulatory requirements and Commercialization in the Collaboration Territory, provided that notwithstanding the foregoing, only Amgen shall be entitled to receive raw data from Clinical Studies and (ii) such other Know-How within the Product Intellectual Property as is reasonably necessary for the other Party to exercise its rights or fulfill its obligations under this Agreement. The JSC may establish reasonable policies to effectuate such exchange of data and Know-How between the Parties. For clarity, Amgen shall not be obligated to share with BeiGene or provide BeiGene with access to Know-How related to any devices used in connection with, or the manufacture of, a Product. If Amgen delegates to BeiGene regulatory responsibilities and/or communications within the Collaboration Territory regarding Product manufacturing, BeiGene will abide by mutually agreed upon standards to ensure sufficient protection of the information and methods to limit and track individuals who have access to the information.

Section 3.4 Cooperation with Audit and Inspection. Amgen and BeiGene shall each respond to any inspection of such Party conducted by a Regulatory Authority, and Amgen and BeiGene, as applicable, shall cooperate with the other Party in response thereto. Amgen shall use reasonable efforts to make data and documents available for such inspection pertaining to Products under this collaboration. For clarity, the foregoing obligations of cooperation are with respect to inspections by a Regulatory Authority related to the storage and distribution of Products and not with respect to an audit or inspection of the Manufacturing of Products. The Parties acknowledge that joint planning for initial audits of the Third Party contractors utilized by each Party in connection with the conduct of Development and Commercialization activities under this Agreement are expected to begin promptly after the Effective Date.

ARTICLE IV.

MANUFACTURING

Section 4.1 Manufacturing Lead. Amgen will be solely responsible for the manufacturing of Products either by its Affiliates (other than an entity that is disregarded as an entity separate from Amgen as described in Treasury Regulation section 301.7701-3(a)) or by Third Party contract manufacturers, pursuant to contracts the terms of which are consistent with the principles of Section 15.13 hereof, in accordance with a Supply Agreement for each Product. Amgen shall have the right to determine whether to recall Products and to control all recalls of the Products in the Collaboration Territory, and BeiGene shall provide any reasonable assistance requested by Amgen in connection therewith.

Section 4.2 Manufacturing and Supply. Amgen will use Commercially Reasonable Efforts to supply Product in a manner sufficient to fulfill commercial demand for the Product in the Collaboration Territory in accordance with the Supply Agreement. BeiGene will pay Amgen for such Products at the Supply Price for such unit of Product within [*] of receipt of the applicable invoice for such Product. All sales of Products will be final (subject to returns for failure of any Product to meet specifications). Notwithstanding the foregoing, Amgen will resupply BeiGene with Products that [*], in each case in accordance with the Supply Term Sheet Schedule. Amgen will have the sole right to determine which manufacturing sites will be used to Manufacture a Product

and may transfer the Manufacturing of such Product from one site to another.

Section 4.3 Supply and Quality Agreements. At least [*] prior to the expected First Commercial Sale of a Pipeline Product in the Collaboration Territory (or in the case of the In-Line Products, prior to the First Commercial Sale in the Collaboration Territory of any such In-Line Product by or on behalf of BeiGene), the Parties shall enter into a Supply Agreement and a Quality Agreement with respect to the supply of such Product by Amgen to BeiGene for commercial use. The Supply Agreement shall incorporate the terms set forth in the Supply Term Sheet Schedule and other customary terms and conditions mutually agreed upon by the Parties including (a) the effect of Amgen's failure to supply BeiGene with its requirements of a Product for commercial use, (b) [*] and (c) the effect of a shortage of supply of any Product, including actions to be taken to ensure that [*]. Amgen and BeiGene shall enter into a Quality Agreement with any Third Party contract manufacturer, warehouse, transportation or a Third Party test laboratory utilized for the Products. The Manufacturing of Products will comply with the Quality and Compliance Standards, Supply Agreement(s) and Quality Agreement(s).

Section 4.4 Distribution. Subject to Amgen's rights under Section 6.6 (Use of Affiliates and Third Party Contractors), BeiGene will be solely responsible for the Distribution of Products in the Collaboration Territory. The Distribution shall comply with the Quality and Compliance Standards and the requirements set forth in the Quality Agreement. Amgen may perform due diligence and audits of BeiGene's facilities and those of its Affiliates and Third Parties involved in the Distribution of Products with respect to storage and distribution in accordance with Section 6.6 (Use of Affiliates and Third Party Contractors).

Section 4.5 Brand Security and Anti-Counterfeiting. The Parties will establish contacts for communication regarding brand security issues and will each reasonably cooperate with the other with respect thereto. Practices with respect to brand security will comply with Amgen's then-current standards, where they define product security features, warehouse/cargo protection requirements, and response and communication process for brand security incidents.

ARTICLE V.

COMMERCIALIZATION

Section 5.1 Commercialization of In-Line Products and Pipeline Products.

5.1.1 Commercialization Plan and Budget. Amgen shall prepare an initial Global Brand Plan for each Product not later than [*] prior to the anticipated Regulatory Approval of the applicable Product in the Collaboration Territory. For each Product, BeiGene shall prepare an initial draft Commercialization Plan, Commercialization Budget and Access and Pricing Plan not later than [*] prior to the anticipated Regulatory Approval of the applicable Product in the Collaboration Territory. Thereafter, the Parties will continue to discuss and refine such initial, draft Commercialization Plan, Commercialization Budget and Access and Pricing Plan. Amgen shall submit the Global Brand Plan to the JSC for review, and BeiGene shall submit the Commercialization Plan, Commercialization Budget and Access and Pricing Plan to the JSC for approval, not later than [*] prior to the anticipated Regulatory Approval of the applicable Product in the Collaboration Territory or as otherwise determined by the JSC. Thereafter, the Global Brand Plan, Commercialization Plan, Commercialization Budget and Access and Pricing Plan for each Product will be updated annually (or such other timeframe determined by the JSC) and submitted to the JSC for approval.

5.1.2 In-Line Products.

(a) General. BeiGene shall be solely responsible for, and shall use Commercially Reasonable Efforts to conduct, the promotion and sale of the In-Line Products in accordance with the Global Brand Plan, Commercialization Plan, Commercialization Budget and Access and Pricing Plan for the In-Line Product Commercialization Period applicable to such In-Line Product. The "In-Line Product Commercialization Period" shall be the period of time beginning on, (i) with respect to XGEVA®, the date of completion of the transition services to be conducted by the Parties for XGEVA® set forth in the Transition Services Agreement, following [*], including compliance with Applicable Law [*] and (ii) with respect to all other In-Line Products, the date of First Commercial Sale of the other In-Line Products in the Collaboration Territory (as specified on the Products Schedule) and ending five (5) years after commencement of the applicable In-Line Product Commercialization Period; *provided, however*, that: (x) the In-Line Product Commercialization Period for the In-Line Product [*] will be extended until seven (7) years after commencement of the applicable In-Line Product Commercialization Period; and (y) the In-Line Product Commercialization Period for a Retained In-Line Product selected in accordance with Section 5.1.5 shall extend for so long as such In-Line Product is sold in the Collaboration Territory. On a Product-by-Product basis, following the In-Line Product Commercialization Period applicable for each In-Line Product, all rights to Exploit any and all In-Line Products (other than a Retained In-Line Product) shall revert to Amgen and shall be subject to Section 14.9 (Transition Obligations).

(b) Initial In-Line Product Transition. Within thirty (30) days after the Effective Date, the Parties shall enter into, execute and deliver a Transition Services Agreement, consistent with the scope of the Initial Product Transition Services Schedule attached hereto, with such changes, if any, as may be mutually agreed by the Parties (the "Transition Services Agreement"), including any changes to the Initial Product Transition Services Schedule as each Party, using its reasonable best efforts, shall negotiate and supplement or finalize; *provided* that, for clarity, if despite such reasonable best efforts, the Parties are not able to agree in writing on any particular service to be provided or performed thereunder, the Transition Services Agreement shall include only such types of services as are included in the Initial Product Transition Services Schedule that are being utilized in connection with the In-Line Products during the [*] prior to the Effective Date. During the [*] following the later of the date of execution of the Transition Services Agreement and completion of the activities set forth in the Initial Product Transfer Requirements Schedule, the Parties shall cooperate to transition the In-Line Products from Amgen to BeiGene in the Collaboration Territory in accordance therewith. Amgen shall take all actions reasonably requested by BeiGene to facilitate such transition, and the Parties shall conduct such transition expeditiously and as reasonably necessary to minimize disruption in the commercialization of the In-Line Products in the Collaboration Territory, in each case in accordance with the terms and provisions of the Transition Services Agreement. The Parties shall each be responsible for their own costs and expenses incurred in accordance with this Section 5.1.2(b).

5.1.3 Pipeline Products.

(a) BeiGene shall be solely responsible for, and shall use Commercially Reasonable Efforts for, the promotion and sale of the Pipeline Products in accordance with the Global Brand Plan, Commercialization Plan, Commercialization Budget and Access and Pricing Plan for seven (7) years following Regulatory Approval for promotion and sale of each such Product in the Collaboration Territory (the "Pipeline Product Commercialization Period"); *provided, however*, that, the Pipeline Product Commercialization Period for each Retained Pipeline Product selected according to the selection methodology set forth in Section 5.1.5 shall be extended for so long as such Pipeline Product is sold in the Collaboration Territory. On a Product-by-Product basis, following the Pipeline Product Commercialization Period for each Product, all rights to Exploit any and all Pipeline Products (other than the Retained Pipeline Product(s)) shall revert to Amgen and shall be subject to Section 14.9 (Transition Obligations).

(b) BeiGene acknowledges and agrees that, without the prior written consent of Amgen, BeiGene shall not Commercialize a Pipeline Product with [*] until after the First Commercial Sale of such Pipeline Product in (i) any one of [*] and (ii) [*]. If the Applicable Retail Baseline Price for a Pipeline Product in the Collaboration Territory will likely be higher than [*] for such Product then BeiGene shall promptly report to the JSC (including by providing supporting documentation) its business case that [*]. Thereafter, Amgen shall have the right, at its sole discretion, to: (i) [*] or (ii) [*]. If Amgen elects to exercise its option described in the foregoing clause (ii), then the Parties shall discuss and agree in good faith upon [*] and upon such agreement [*] provided that [*]. Notwithstanding the foregoing, if the Parties cannot reach agreement with respect to the foregoing [*], either Party may request such Dispute be arbitrated in accordance with Section 15.4.4. [*].

5.1.4 Reversion of In-Line Products and Pipeline Products. In order to memorialize and effectuate the reversion of Product rights to Amgen pursuant to Sections 5.1.2 and 5.1.3 and Sections 14.6 and 14.9, the Parties shall, within [*] following the Effective Date, enter into, execute and deliver a Master Reverse Transition Services Agreement with Product-specific addendums to be entered into at least [*] prior to the expected Product Reversion date (each a "Reverse Transition Services Agreement"), consistent with the scope of the Product Reversion Transition Services Schedule attached hereto, with such changes, if any, as may be mutually agreed by the Parties, including any changes to the Product Reversion Transition Services Schedule as each Party, using its reasonable best efforts, shall negotiate and supplement or finalize.

5.1.5 Selection of Retained In-Line Product and Retained Pipeline Products.

(a) Retained In-Line Product. BeiGene shall have the option to select one (1) In-Line Product (provided that such In-Line Product [*]) to retain for the Collaboration Territory for so long as such In-Line Product is sold in the Collaboration Territory (the "Retained In-Line Product"); *provided* that BeiGene shall provide notice to Amgen of such selection no later than [*].

(b) Retained Pipeline Product. BeiGene shall have the option to retain rights in the Collaboration Territory for one or more of the Pipeline Products (but excluding AMG 510) based on the number of such Pipeline Products that have received Regulatory Approval in the Collaboration Territory as set forth in the schedule below for so long as such Pipeline Product is sold in the Collaboration Territory (the "Retained Pipeline Product(s)"). The number of such Retained Pipeline Product(s) that are subject to BeiGene's option and may be designated as Retained Pipeline Product(s) will be determined no later than [*] of the First Commercial Sale of the applicable Pipeline Product in the Collaboration Territory that triggers an increase in the number of Pipeline Products that are subject to BeiGene's option. For example, BeiGene may select one (1) Retained Pipeline Product from among the first three (3) Pipeline Products that have received Regulatory Approval in the Collaboration Territory [*] following the First Commercial Sale of the third Pipeline Product in the Collaboration Territory; and BeiGene may select an additional Retained

Pipeline Product from among the fourth through seventh Pipeline Products that have received Regulatory Approval in the Collaboration Territory within [*] following the date of First Commercial Sale of the seventh Pipeline Product in the Collaboration Territory. The Parties will discuss in good faith any necessary modification to the selection process in this Section 5.1.5(b) due to the timing of Regulatory Approval of the Pipeline Products.

Total Pipeline Product Regulatory Approvals	Number of Pipeline Products BeiGene has Option to Retain	Total Pipeline Product Regulatory Approvals	Number of Pipeline Products BeiGene has Option to Retain
1	0	11	3
2	0	12	3
3	1	13	4
4	1	14	4
5	1	15	4
6	1	16	5
7	2	17	5
8	2	18	5
9	2	19	6
10	3		

Section 5.2 Commercial Lead. For each Product, BeiGene will oversee and be responsible for commercialization activities (including [*], sales, marketing, and access and reimbursement) with respect to all indications for such Product in the Collaboration Territory (in such capacity, "Commercial Lead"). Except as expressly set forth herein, only the Commercial Lead (or the authorized person of the Commercial Lead) is authorized to sell Products in the Collaboration Territory, and the Commercial Lead will have the sole right, in its discretion, to take orders for and returns of, issue credits for, sell and book sales for Products in the Collaboration Territory. The non-Commercial Lead will promptly forward to the Commercial Lead all orders for, and requests to order, Products in the Collaboration Territory.

Section 5.3 Allocation of Commercial Responsibility. The JAC will allocate commercial activities (including pricing that is above the Applicable Retail Baseline Price, promotion, marketing access and reimbursement) to BeiGene on a Product-by-Product basis and activity-specific basis in accordance with the Commercialization Plan and this Article V.

Section 5.4 Training. The JAC will establish a process by which the Parties will review, comment on and approve training materials and programs (which will be aligned with Amgen's global training materials that support the Global Brand Plan), and training of the Parties' marketing forces for Commercialization of the Products in the Collaboration Territory will be conducted using only training materials and programs approved in accordance with such process. BeiGene shall provide Amgen with any subsequent revisions or updates to the content of such training materials and programs (but BeiGene need not provide any immaterial or clerical revisions or updates), and such training materials and programs will be reviewed and approved or objected to by Amgen promptly and in no event longer than [*] following receipt of such proposed revisions or updates. BeiGene will provide and track participation in training for BeiGene's sales and marketing representatives with respect to the promotion of a Product (and update such training from time to time as appropriate) which training will include compliance training as appropriate, all in accordance with the applicable Global Brand Plan and Commercialization Plan. Upon request, BeiGene will report to Amgen on the annual and quarterly training participation metrics that it is tracking. Amgen will own all right, title and interest in the training materials developed hereunder for such Product; *provided* that the Parties agree that BeiGene may retain ownership of training materials developed by BeiGene which are generally applicable to the products marketed and sold in BeiGene's business (such as general sales and training guidance) and not specific to the collaboration with respect to the Products. BeiGene will execute all documents and take all reasonable actions as are reasonably requested by Amgen to vest title to such training materials in Amgen.

Section 5.5 Information Concerning Products. Each Party will ensure that no claims or representations in respect of a Product in the Collaboration Territory or the characteristics thereof are made by or on behalf of it or its Affiliates (by marketing force members or otherwise) that have not been approved by the JAC and neither Party will make any claim or representation in the Collaboration Territory that does not represent an accurate summary or explanation of the labeling of such Product. Notwithstanding the foregoing, either Party shall be permitted to engage in Scientific Exchange with respect to a Product in the Collaboration Territory.

Section 5.6 Promotional Materials. The JAC will establish a process by which the Parties will review, comment on and approve all written sales, promotion and advertising materials relating to a Product for use in the Collaboration Territory, and other

media and materials used to promote the Products or educate the public regarding an indication treated with a Product in the Collaboration Territory (collectively and including translations, "Promotional Materials"). BeiGene will prepare Promotional Materials and give Amgen an opportunity to review such Promotional Materials based on the process established by the JAC. In the event of a disagreement regarding such Promotional Materials, such matter shall be escalated to the JSC and Amgen will, after consultation with the JSC, have the tie-breaking vote if BeiGene's proposal would reasonably be expected to (i) have a material adverse impact on Amgen's exploitation of the applicable Product outside the Collaboration Territory, (ii) [*] have a material adverse impact on Amgen's exploitation of [*], (iii) potentially infringe a Third Party's intellectual property or other proprietary rights, or (iv) violate Applicable Law. BeiGene shall provide Amgen with an opportunity to review subsequent revisions or updates to the content of such Promotional Materials (but BeiGene need not provide any immaterial or clerical revisions or updates), and to the extent Amgen chooses to review such Promotional Materials will be reviewed and approved or objected to by Amgen promptly and in no event longer than [*] following receipt of such proposed revisions or updates. All Promotional Materials will be consistent on a substantive basis with the Global Brand Plan and Commercialization Plan. All Promotional Materials will include, to the extent permitted by Applicable Law, the Amgen Housemarks and the BeiGene Housemarks. Upon BeiGene's reasonable request, Amgen will provide BeiGene with copies of global marketing and promotional materials. Other than a Party's use and distribution of Promotional Materials that are approved in accordance with the foregoing process and used and distributed in connection with BeiGene's Commercialization of a Product, neither Party will produce or modify (other than as concepts for consideration by the other Party), or distribute or otherwise use any Promotional Material relating to a Product. If so instructed by the JAC, BeiGene will immediately cease to use any Promotional Materials and will collect and destroy any such materials from its marketing representatives (and record and document such collection and destruction (and provide a copy of such documentation to the other Party upon request)). Notwithstanding the foregoing, BeiGene shall not be obligated to use the Promotional Materials unless they are reasonably acceptable to such Party (in which event, such Party shall have the right to decline to use such contested Promotional Materials upon written notice to the other Party). Amgen will own all right, title and interest in and to any and all Promotional Materials; *provided* that the Parties agree that BeiGene may retain ownership of Promotional Materials developed by BeiGene which are generally applicable to the products marketed and sold in BeiGene's business and not specific to the collaboration with respect to the Products. BeiGene will execute all documents and take all actions as are reasonably requested by Amgen to vest title to such Promotional Materials in Amgen.

Section 5.7 Commercial Reporting, Records, Costs and Audits.

5.7.1 Reporting. BeiGene will (i) provide Amgen with [*] reports, in the form set forth in the Sales Force and Other Personnel Schedule attached to this Agreement and (ii) conduct a [*] in-person review by Amgen's Head of Commercial and BeiGene's China General Manager to discuss Sales Force and Other Personnel efforts and coordinate Sales Force and Other Personnel efforts in the Collaboration Territory with global sales efforts. Notwithstanding the foregoing, the Parties may, by mutual written agreement, modify the timing, frequency or required content of the reports contemplated by this Section 5.7.1 (Reporting). BeiGene covenants and agrees to implement a customer relationship management (CRM) system, which will allow BeiGene to track Sales Force and, if applicable, Other Personnel including, with respect to Sales Force, detail position in the call, no later than [*]. BeiGene shall not be obligated to disclose and shall be permitted to redact information related to products other than Products. In addition to data from the CRM system, information customary for tracking Sales Force and Other Personnel performance in the Collaboration Territory will be kept. This data can later be used for auditing Sales Force Costs and other Commercialization and Related Costs and activities for the Products in the Collaboration Territory. If Amgen questions the validity of such reported Sales Force Costs and/or other Commercialization and Related Costs and activity, it will have audit rights in accordance with Section 8.4.3.

5.7.2 Records; Audit Right. BeiGene will maintain complete and accurate records of its Sales Force Costs and other Commercialization and Related Costs and activities related to the Products in the CRM system and in a suitable enterprise reporting package (ERP) in order to permit Amgen to audit Sales Force Costs and other Commercialization and Related Costs and activities related to Products in accordance with Section 8.4.3.

5.7.3 Calculation of Sales Force Costs and Other Personnel Costs. Sales Force Costs and other Commercialization and Related Costs arising from Collaboration Activities performed by BeiGene or any of its Affiliates in the Collaboration Territory will be determined pursuant to the approved Commercialization Plan and Commercialization Budget and by allocation of proportion of Sales Force and Other Personnel activities directed to Products.

5.7.4 Distribution Outside the Collaboration Territory. BeiGene shall not Commercialize the Products outside the Collaboration Territory and shall not transfer or sell Products to any Third Party whom BeiGene knows or should reasonably know will Commercialize the Products outside the Collaboration Territory. Each Party shall notify the other Party if it becomes aware of the exportation of Product from inside the Collaboration Territory to outside the Collaboration Territory (or vice versa).

ARTICLE VI.

PERFORMANCE STANDARDS

Section 6.1 Collaborative Activities. Activities to be undertaken by the Parties hereunder will be conducted in a collaborative manner as determined by the committee or team overseeing such activities, and in accordance with the terms and conditions of this Agreement, as applicable. Notwithstanding any tie-breaking authority that a Party may have under this Agreement, both Parties are entitled to actively collaborate in the compliance, financial oversight, audit, distribution, government affairs, regulatory, development and commercialization activities of the Collaboration.

Section 6.2 Diligence Standards. The Parties shall use, and shall assure that each of its Affiliates and any Third Parties engaged by such Party uses, Commercially Reasonable Efforts to timely and diligently conduct the Collaboration Activities allocated to such Party under this Agreement in accordance with the Global Development Plan, Global Development Budget, Global Brand Plan, Commercialization Plan and Commercialization Budget and such reasonable directions as may be issued by the JSC and JAC from time to time, subject, at all times, to the terms of this Agreement.

Section 6.3 Fair Value Pricing. Amgen and BeiGene each shall not attempt to reduce compensation rightly due to the other Party hereunder by shifting compensation otherwise payable to such Party from a Third Party with respect to a Product to another product or service for which no compensation is payable to the other Party hereunder. In addition, Amgen and BeiGene each shall not divest, restructure, reorganize or reclassify its Affiliates, or conduct its activities hereunder through any Affiliates, with any intent in whole or in part to avoid, reduce or eliminate its or any of its Affiliates' obligations or commitments set forth in this Agreement. Without limitation of the foregoing, each Party agrees not to enter into any transaction that would result in the shifting of the benefits that would otherwise be due to the other Party hereunder and shall at all times contract in good faith for internally or externally provided services related to the Products.

Section 6.4 Proper Conduct Practices Standards. Each Party will conduct, and ensure that each of its Affiliates and Third Parties engaged by such Party conducts, all of its and their activities with respect to the development, registration, manufacture, distribution, promotion and commercialization of a Product for the Collaboration Territory in accordance with this Agreement, the applicable Global Development Plan, applicable Global Brand Plan, applicable Global Payer Plan, applicable Access and Pricing Plan, applicable Commercialization Plan, the Quality and Compliance Standards, Proper Conduct Practices, and all Applicable Law. The Parties will provide each other with all reasonably requested cooperation to enable each of them to comply with Proper Conduct Practices, Applicable Law and the Quality and Compliance Standards, including permitting each Party to reasonably monitor activities conducted by a Party in connection with this Agreement in order to verify the other Party's compliance therewith with respect to the Collaboration Scope and market environment of the Collaboration Territory. After the Effective Date, each Party shall review the other Party's conduct practices which ensure compliance with the Proper Conduct Practices, and, shall implement changes to its conduct practices with respect to the Exploitation of Products in the Collaboration Scope to the extent necessary to meet the standard of the other Party's conduct practices, if higher. In the event of a disagreement regarding such conduct practices, such matter shall be escalated to the JSC and Amgen will, after consultation with the JSC, have the tie-breaking vote on such matter.

Section 6.5 Violation of Laws. Each Party will promptly notify the other Party of any formal or informal request for information, subpoena, investigation, litigation, penalty or claim from any Governmental Authority, or any Third Party, for violation or potential violation of Applicable Law by its personnel with respect to the conduct of activities under this Agreement. In the event of any such violation, the Parties will promptly confer regarding any such violation and will promptly take remedial or preventative action as may be reasonably required by the JAC with respect thereto. The Parties will have the right to require that any personnel that materially violates Applicable Law or the Quality and Compliance Standards cease to perform activities under this Agreement.

Section 6.6 Use of Affiliates and Third Party Contractors.

6.6.1 Each Party will perform the Collaboration Activities designated to it itself or through any of its Affiliates, and any proposed use of a Third Party to conduct such activities will be subject to the other Party's prior written consent, such consent not to be unreasonably withheld, conditioned or delayed; *provided* that (i) the other Party's consent will not be required for Collaboration Activities that such Party has, prior to the Execution Date, arranged to have performed by Third Parties and which have been disclosed in writing to such other Party prior to the Execution Date (moreover, the other Party's consent will not be required for activities that a Party has assumed from the other Party that the other Party previously arranged to be performed by Third Parties prior to such transition) and (ii) Amgen will be permitted to engage Third Party contract manufacturers without BeiGene's prior consent. BeiGene and Amgen shall work together on the engagement of Affiliates and Third Parties for Distribution of Products in

the Collaboration Territory in accordance with Section 6.6.2.

6.6.2 BeiGene Distributors. BeiGene shall inform Amgen of its distribution network design, including the criteria and standards for the selection of distributors and a list of distributors that BeiGene has approved based on such criteria and standards. BeiGene shall provide Amgen with any materials Controlled by BeiGene concerning any distributor that BeiGene has approved based on the such criteria and standards and BeiGene anticipates will distribute Products in the Collaboration Territory, and any additional information reasonably requested by Amgen concerning such distributor.

6.6.3 Audits of BeiGene Distributors. Amgen may, from time to time, upon reasonable notice (at least [*]) and at a reasonable frequency ([*]), perform audits of selected sites and downstream distributors to ensure compliance with the Applicable Law, including, but not limited to, Proper Conduct Practices, Anti-Corruption Laws and the Quality and Compliance Standards, including NMPA Good Supply Practice (GSP). If Third Party logistic services are used for storage and distribution of Products, BeiGene shall establish a policy and process to manage such services, including, but not limited to, a quality agreement and operation procedures. Within a reasonable time prior to the expected First Commercial Sale in the Collaboration Territory, Amgen will perform an audit of BeiGene on its management of product distribution in compliance with the Quality and Compliance Standards, including NMPA Good Supply Practice (GSP). Remediation of any discrepancies identified in such initial audit shall be closed prior to Amgen's supply of Product. BeiGene shall promptly notify Amgen of any significant discrepancies or concerns related to BeiGene's, an Affiliate's or any Third Party's (including sub-distributors, wholesalers and pharmacies) ability to perform any of its obligations related to the Distribution of Products in the Collaboration Territory or to comply with the Quality and Compliance Standards or, if applicable, the Proper Conduct Practices. In the event that Amgen, following good faith consultation with BeiGene regarding any Affiliate or Third Party, raises reasonable concerns over the ability of such Affiliate or Third Party (including sub-distributors, wholesalers and pharmacies) conducting Distribution of Products in the Collaboration Territory to comply with the Quality and Compliance Standards or, if applicable, the Proper Conduct Practices, BeiGene shall not engage (or, if BeiGene has already engaged such Affiliate or Third Party, BeiGene shall promptly agree on corrective action with Amgen), such Affiliate or Third Party for Distribution of Products in the Collaboration Territory. Any dispute regarding the immediately preceding sentence shall be elevated to the JSC for final determination. Amgen shall have the right to audit BeiGene with respect to such Distribution activities, upon reasonable notice (at least [*]) and at a reasonable frequency (no more than once per year absent reasonable evidence of a concern), and BeiGene shall ensure that Amgen has the right to audit any such Affiliates or Third Parties involved in such Distribution, with respect to their respective compliance with the Quality and Compliance Standards or, if applicable, the Proper Conduct Practices. BeiGene shall ensure that agreements entered into with Affiliates or Third Parties with respect to such Distribution include customary anti-bribery and anti-corruption covenants and audit right provisions, in each case consistent with this Agreement. BeiGene shall, and shall cause such Affiliates and Third Parties to, maintain sufficient books and records to enable such audits.

6.6.4 BeiGene shall permit, and use its Commercially reasonable efforts to cause its Affiliates and Third Party distributors (including sub-distributors, wholesalers and pharmacies) to permit, Amgen to accompany any regulatory authority's officials during an inspection. BeiGene will provide, and will cause its Affiliates and Third Party distributors to provide, Amgen with copies of all reports and communications with such regulatory authority in connection therewith.

6.6.5 Cost overruns resulting from either Party's use of a Third Party to conduct any such activities will be subject to Section 7.9 (Overruns).

Section 6.7 Management of Personnel. Each Party will have sole authority and responsibility for recruiting, hiring, managing, compensating (including paying for all benefits, wages, special incentives, workers' compensation, remuneration and employment taxes), disciplining, firing and otherwise controlling the personnel provided by such Party for performance of its obligations hereunder; *provided* that each Party will require its personnel to be subject to a confidentiality agreement and Program Intellectual Property assignment commitment prior to, and as a condition of, such personnel performing any such activities hereunder. In the event any remuneration is due to personnel provided by a Party to perform its obligations hereunder (whether pursuant to Applicable Law, contract or otherwise), such Party hereby agrees to pay, at its sole cost and expense, any such remuneration. Each Party will provide the day-to-day management of its representatives and other personnel, including furnishing administrative support, financial resources, equipment and supplies.

Section 6.8 Obligation to Notify. Each Party shall promptly notify the other Party upon becoming aware of any breach or violation by such Party (including through any Representative of such Party or Third Party engaged by such Party) of Sections 6.4 and 6.5 or the Anti-Corruption Laws and such Party shall take such steps as the Parties may reasonably agree to avoid a potential or continuing violation of the Anti-Corruption Laws or a breach of Sections 6.4 or 6.5.

ARTICLE VII.

FINANCIAL CONSIDERATION

Section 7.1 Global Development Cost Sharing.

7.1.1 Reports.

(a) BeiGene will provide Amgen with a final report within [*] from the end of each calendar quarter of the actual amount of the BeiGene Pipeline Product Development Costs incurred by BeiGene in accordance with the Global Development Plan and Global Development Budget.

(b) Amgen will provide BeiGene with a final report within [*] from the end of each calendar quarter of the actual amount of the Amgen Pipeline Product Global Development Cost incurred by Amgen under Section 7.1.2 (Global Development Cost Share).

(c) Amgen will provide BeiGene, on a [*] basis, a good faith estimate of the anticipated Global Development Cost-Share Payments for the following [*] period.

7.1.2 Global Development Cost-Share.

(a) Subject to the Aggregate Global Development Cost-Share Cap, BeiGene shall pay to Amgen, in connection with the global development of each Pipeline Product, on a [*] basis, [*] of Amgen Pipeline Product Global Development Costs (such payment obligations, "Global Development Cost-Share Payments") and [*] of Amgen Pipeline Product Global Development Costs above [*]; *provided, however*, that BeiGene's Global Development Cost-Share Payments shall be credited for (i) the amount of BeiGene Pipeline Product Development Costs incurred by BeiGene during such period in accordance with the Global Development Plan and Global Development Budget pursuant to Section 3.1.1 and (ii) [*] of the amount of BeiGene Development Cost Savings. The Global Development Budget shall be based on Amgen's internal cost estimates, reflecting an FTE Rate as defined in Section 1.69.

(b) Following the Effective Date, BeiGene's Global Development Cost-Share Payments shall be subject to an aggregate maximum of US$1,250,000,000 (the "Aggregate Global Development Cost-Share Cap"). Once the Aggregate Global Development Cost-Share Cap is met, no further Global Development Cost-Share Payments shall be payable by BeiGene and to the extent that BeiGene is performing Designated BeiGene Activities hereunder, Amgen shall, subject to Section 7.9 (Overruns), reimburse BeiGene for its BeiGene Pipeline Development Costs; *provided, however*, that, after such time, BeiGene shall no longer be entitled to a credit for any [*]. For the sake of clarity, [*].

(c) The BeiGene Development Cost Savings will be determined on [*]. Clinical Study Costs that will be eligible for BeiGene Development Cost Savings include: [*]. Costs that are not eligible for BeiGene Development Cost Savings include [*]. BeiGene's Global Development Cost-Share Payment obligations pursuant to Section 7.1.2(a) shall be credited with [*]. Without limiting the foregoing, [*].

7.1.3 Payment. The Global Development Cost-Share Payments shall be made each calendar quarter and such amount will be included in a final quarterly balancing payments as set forth in Section 7.7 (Final Balancing Payments).

Section 7.2 Profit Sharing. The Parties will share in Profits generated by Products in the Collaboration Scope: (i) with respect to In-Line Products, during the applicable In-Line Product Commercialization Period for such In-Line Product; (ii) with respect to Pipeline Products, during the applicable Pipeline Product Commercialization Period for such Pipeline Product; and (iii) for such longer period as set forth in Section 5.1 for each Retained In-Line Product and each Retained Pipeline Product (i.e., for so long as such Retained In-Line Product or Retained Pipeline Product, as applicable, is sold in the Collaboration Territory); in each case as follows:

7.2.1 BeiGene Costs. Within [*] after the end of each calendar quarter, BeiGene will provide to Amgen a final report of its Commercialization and Related Costs, on a Product-by-Product basis, incurred by BeiGene or its Affiliates in accordance with this Agreement (collectively, "BeiGene Costs") in such quarter. BeiGene will initially incur the portion of the Commercialization and Related Costs attributed to its activities hereunder. In addition to the annual Commercialization Budget approved hereunder, prior to the end of each calendar year, BeiGene will provide Amgen with a nonbinding estimate of its Commercialization and Related Costs for the [*] period [*] following the year covered by such approved budgets; *provided* that the Parties will review and discuss such estimated Costs at the JSC. Notwithstanding the foregoing, BeiGene's shared portion of the Commercialization and Related Costs

incurred in performing any Clinical Studies conducted after Regulatory Approval for In-Line Products in the Collaboration Territory shall be subject to an annual maximum of [*] during each [*] period following the Effective Date and subject to an aggregate maximum of [*]. Within [*] after the end of each calendar quarter, BeiGene will provide Amgen with a report of BeiGene's product-level profit & loss statements for such calendar quarter, which report will contain a detailed and itemized calculation of Net Revenues for each Product during such calendar quarter. Additionally, [*] after the end of each calendar quarter, BeiGene will provide Amgen with a report of any Recoveries for such calendar quarter.

7.2.2 Amgen Costs. Within [*] after the end of each calendar quarter, Amgen will provide to BeiGene a final report of its Commercialization and Related Costs, on a Product-by-Product basis, incurred by Amgen or its Affiliates in accordance with this Agreement (collectively, "Amgen Costs") in such quarter. Amgen will initially incur the Manufacturing Actual Costs and the portion of the Commercialization and Related Costs attributed to its activities hereunder. In addition to the annual Commercialization Budget approved hereunder, prior to the end of each calendar year, Amgen will provide BeiGene with a nonbinding estimate of its Commercialization and Related Costs for the [*] period (detailed on a calendar year basis) following the year covered by such approved budgets; *provided* that the Parties will review and discuss such estimated costs at the JSC. Within [*] after the end of each calendar quarter, Amgen will provide BeiGene with a report of any Recoveries for such calendar quarter.

7.2.3 FTE Rate. The FTE Rate used for calculation of Costs pursuant to this Article VII (Financial Consideration) with respect to any activity will be the relevant FTE Rate for the calendar year in which such activity was undertaken.

7.2.4 Income Taxes. For the avoidance of doubt, income and withholding taxes imposed on either of the Parties hereunder will not be included in cost sharing hereunder.

7.2.5 Exchange Rate. For purposes of calculating quarterly balancing payments as set forth in Section 7.2.7 (Calculation of Collaboration Profits), Net Revenues, Amgen Costs and BeiGene Costs will be converted from local currency (if different from $US) to $US in accordance with Section 8.3.3 (Conversions).

7.2.6 Net Revenues. Within [*] after the end of each calendar quarter, BeiGene will provide Amgen with a report of Net Revenues for such calendar quarter, which report will contain a detailed and itemized calculation of Net Revenues for each Product during such calendar quarter. Additionally, within [*] after the end of each calendar quarter, each Party will provide the other Party with a report of any Recoveries for such calendar quarter.

7.2.7 Calculation of Collaboration Profits. BeiGene will pay Amgen for units of Product at the Supply Price for such unit of Product and BeiGene will be entitled to book end customer sales. Within [*] after the end of each quarter, Amgen will calculate and provide to BeiGene a report of the Costs each Party is responsible for under this Section 7.2 for such quarter. Based on the [*], a compensating payment ("Compensating Payment") will be made by Amgen to BeiGene or BeiGene to Amgen, as applicable, in order to achieve a 50/50 Profit split. The resulting amounts will be the "Collaboration Profits" for such calendar quarter.

Section 7.3 Example. The Collaboration Profit Schedule sets forth an example of the Compensating Payment calculation.

Section 7.4 Calculation of Net Revenues. In calculating Net Revenues for the purposes of this Article VII (Financial Consideration):

7.4.1 Free Products. Any disposal of Products for, or use of Products in, clinical or pre-Clinical Studies, given as free samples, or distributed at no charge to patients unable to purchase Product shall [*].

7.4.2 Non-Monetary Compensation. Upon any sale or other disposal of any Product that should be included within Net Revenues for any consideration other than an exclusively monetary consideration on bona fide arm's length terms, then for purposes of calculating the Net Revenues under this Agreement, such Product shall be deemed to be [*].

7.4.3 Multi-Product Offerings. In the event a Product is sold with one or more other products or services for a single price (together, a "Multiple Product Offering"), Net Revenues for such Multiple Product Offering shall be calculated by multiplying actual Net Revenues of such Multiple Product Offering by the fraction A/(A+B) where A is the invoice price of the Product, if sold separately, and B is the total invoice price of the other products in the Multiple Product Offering, if sold separately. If, on a country-by-country basis, the other products in the Multiple Product Offering are not sold separately in said country, Net Revenues for the purpose of determining royalties of the Multiple Product Offering shall be calculated by multiplying actual Net Revenues of such Multiple Product Offering by the fraction A/D, where A is the invoice price of the Product, if sold separately, and D is the invoice price of the Multiple Product Offering. If neither the Product nor the other products are sold separately in a given country, the Parties shall determine Net Revenues for such Multiple Product Offering by mutual agreement based on the relative contribution of

the Product (excluding other products) and each other product in the Multiple Product Offering.

Section 7.5 Excluded Losses. The following losses will not be charged to the Collaboration Profit: (i) losses of a Party to the extent attributable to a breach of this Agreement by such Party, or (ii) losses subject to indemnification pursuant to Section 13.1 (Indemnity by BeiGene) or Section 13.2 (Indemnity by Amgen).

Section 7.6 Manufacturing Costs Calculation and True-Up. Manufacturing Standard Costs for a Product manufactured in Amgen's (or its designee's) clinical (i.e., non-commercial) manufacturing facility, calculated as part of Amgen Pipeline Product Global Development Costs, will be included in Amgen Pipeline Product Global Development Costs at the time of manufacture of such Product. Prior to Technical Feasibility, Manufacturing Actual Costs for a Product manufactured in Amgen's (or its designee's) non-clinical (i.e., commercial) manufacturing facility and intended for use in a Clinical Study, calculated as part of Amgen Pipeline Product Global Development Costs, will be included in Amgen Costs at the time of manufacture of such Product. After Technical Feasibility, Manufacturing Actual Costs for a Product manufactured in Amgen's (or its designee's) non-clinical (i.e., commercial) manufacturing facility and intended for use in a Clinical Study and calculated as part of Amgen Pipeline Product Global Development Costs, will be included in Amgen Pipeline Product Global Development Costs at the time such Product is shipped to a site for use of such Product in a Clinical Study. If any Product for commercial use is distributed as samples, lost, unusable due to damage, or otherwise no longer available for commercial sale, then [*]. In addition, due to the fact that Manufacturing Actual Costs may not be known at the time such costs are to be included within the Collaboration Profit, for the purposes of determining Amgen Pipeline Product Global Development Costs for a particular calendar quarter, Amgen will, to the extent any manufacturing costs are to be calculated using Manufacturing Actual Costs, use the then-current estimated Manufacturing Actual Costs for such calendar quarter. By March 31 of each calendar year, Amgen will reconcile any estimated Manufacturing Actual Costs included in Amgen Pipeline Product Global Development Costs in the prior calendar year with the final Manufacturing Actual Costs for such Product and provide such reconciliation to BeiGene. If such reconciliation evidences an over or under payment by either Party, a balancing payment will be made between the Parties in order to maintain the intended revenue and cost sharing allocation set forth in this Agreement within [*]after delivery of such reconciliation report by Amgen and agreement thereon by the Parties.

Section 7.7 Final Balancing Payments. On a quarterly basis, a final balancing payment and report shall be provided by Amgen to BeiGene to give effect to the Development Cost Share Payment pursuant to Section 7.1 and the Calculation of Collaboration Profits pursuant to Section 7.2.7. The net paying Party will make a payment pursuant to this Section 7.7 (Final Balancing Payment) within [*] after delivery of the reports of BeiGene Pipeline Product Development Costs, Amgen Pipeline Product Global Development Costs and Collaboration Profit. Payments pursuant to this Article VII (Financial Consideration) will be made in accordance with the provisions of Article VIII (Payments). On a quarterly basis, on or around [*] prior to calendar quarter end, Amgen and BeiGene shall each provide to the other Party their then current quarterly budget, including (i) the Global Development Budget, (ii) Commercialization Budget, (iii) profit & loss statements (applicable for BeiGene), (iv) royalty forecast, and (v) any other information deemed reasonably necessary for both Parties to reasonably calculate an estimate of their respective obligations set forth in Article VIII for the then current calendar quarter.

Section 7.8 Commercialization Budget Deadlocks. In the event that the JSC is unable to approve an annual Commercialization Budget prior to the expiration of any such budget, then, until approval of such budget by the Parties, each Party will be entitled to continue the Designated Amgen Activities and Designated BeiGene Activities, as applicable, and include its Commercialization and Related Costs, in the calculation of Collaboration Profit for any calendar quarter not covered by an approved budget, until such time as the aggregate Commercialization and Related Costs of such Party included in the calculation of Collaboration Profit for such calendar year is equal to [*].

Section 7.9 Overruns. Each Party will promptly notify the other Party upon becoming aware that the anticipated Costs to be incurred by such Party for activities in or for the Collaboration Territory for a given calendar year will be in excess of the applicable Global Development Budget (portion applicable to the Collaboration Territory) or Commercialization Budget. Unless otherwise agreed by the Parties in advance, in writing, Costs reported by a Party pursuant to Section 7.2.1 (BeiGene Costs) or 7.2.2 (Amgen Costs) incurred with respect to Collaboration Activities in excess of [*] of the aggregate amounts budgeted to be incurred by or on behalf of such Party for its Collaboration Activities in such calendar year in the then-current applicable Global Development Budget (portion applicable to the Collaboration Territory) or Commercialization Budget, respectively, will not be included in the calculation of revenue and costs pursuant to Section 7.2.7 (Calculation of Collaboration Profits); *provided* that such BeiGene Costs and Amgen Costs in excess of such amount will be included in the calculation of revenue and costs pursuant to Section 7.2.7 (Calculation of Collaboration Profits) to the extent such Costs were attributable to: [*]. In no event shall Costs reported by a Party pursuant to Section 7.2.1 (BeiGene Costs) or 7.2.2 (Amgen Costs) incurred due to gross negligence or willful misconduct with respect to Collaboration Activities be included in the calculation of revenue and costs pursuant to Section 7.2.7 (Calculation of Collaboration Profits).

Section 7.10 Royalties.

7.10.1 Pipeline ROW Royalties.

(a) Rates. Subject to Section 9.1.4(c) and the remainder of this Section 7.10, during the applicable Global Pipeline Royalty Term, Amgen shall pay to BeiGene royalties on the annual Net Revenues of all Pipeline Products (excluding AMG 510) in the ROW, as calculated by multiplying the applicable royalty rates set forth below by the corresponding amount of incremental annual Net Revenues of Pipeline Products in the ROW.

Aggregate Annual Net Revenues of Pipeline Products (excluding AMG 510)	Royalty Rate
For that portion of aggregate annual Net Revenues of Pipeline Products in the ROW less than or equal to [*] U.S. Dollars (US$[*])	[*]%
For that portion of aggregate annual Net Revenues of Pipeline Products in the ROW greater than [*] U.S. Dollars (US$[*]) and less than or equal to [*] U.S. Dollars (US$[*])	[*]%
For that portion of aggregate annual Net Revenues of Pipeline Products in the ROW greater than [*] U.S. Dollars (US$[*]) and less than or equal to [*] U.S. Dollars (US$[*])	[*]%
For that portion of aggregate annual Net Revenues of Pipeline Products in the ROW greater than [*] Dollars (US$[*])	[*]%

(b) Global Pipeline Royalty Term. Amgen shall pay BeiGene royalties as set forth in Section 7.10.1(a) on a country-by-country and Pipeline Product by Pipeline Product basis on Net Revenues in the ROW during the period of time beginning on the First Commercial Sale of such Pipeline Product in such country and expiring on the latest of (i) the date on which the Exploitation of such Pipeline Product is no longer Covered by a Valid Claim of any Patents owned or exclusively Controlled by Amgen in such country; (ii) the expiration of Regulatory Exclusivity in such country; and (iii) the earlier of (x) eight (8) years from the date of First Commercial Sale of such Pipeline Product in such country and (y) twenty (20) years from the date of First Commercial Sale of the Product anywhere in the world (the "Global Pipeline Royalty Term").

(c) If during the portion of the applicable Global Pipeline Royalty Term in a particular country where any Pipeline Product is being sold in such country there are Generic/Biosimilar Products with respect to such Pipeline Product marketed in such country and the Generic/Biosimilar Market Entry Threshold is exceeded for such Pipeline Product in such country, then the royalty rates set forth in Section 7.10.1(a) with respect to such Pipeline Product shall be reduced by [*].

(d) If Amgen enters into an agreement with a Third Party after the Effective Date for a right or license under such Third Party's Patents that Amgen reasonably believes is necessary in order to Commercialize any Pipeline Product in any country in the ROW, then Amgen may deduct from any royalty payments to BeiGene under Section 7.10.1(a) up to [*].

(e) In no event shall the royalty reductions or offsets described in Sections 7.10.1(c) or (d), alone or together, reduce the royalties payable by Amgen for a given calendar quarter pursuant to Section 7.10.1(a) to less than [*] of the amounts otherwise payable by Amgen for a given calendar quarter pursuant to Section 7.10.1(a). If Amgen is not able to take the full royalty reductions or offsets under Sections 7.10.1(c) or (d), as applicable, as a result of the foregoing restriction in this Section 7.10.1(e) then Amgen may [*].

7.10.2 Post-Product Return Collaboration Territory Royalties.

(a) Rates. On a Product-by-Product basis during the periods of time beginning from the return of such Product to Amgen in the Collaboration Territory pursuant to Section 5.1.2 or Section 5.1.3, as applicable, and expiring on the fifth anniversary of the date of return of such Product, Amgen shall pay to BeiGene royalties on the annual Net Revenues of all returned Products sold in the Collaboration Territory, as calculated by multiplying the applicable royalty rates set forth below for each returned In-Line Product or returned Pipeline Product, as applicable, by the corresponding amount of annual Net Revenues of such returned In-Line Product or returned Pipeline Product, as applicable, in the Collaboration Territory during the applicable period of time.

Period Following Return of Product Rights to Amgen	Royalty Rate	
	In-Line Product	Pipeline Product

[*] following return of product rights for such Product	[*]%	[*]%
[*] following return of product rights for such Product	[*]%	[*]%
[*] following return of product rights for such Product	[*]%	[*]%
[*] following return of product rights for such Product	[*]%	[*]%
[*] following return of product rights for such Product	[*]%	[*]%

7.10.3 Royalty Payments and Reports. Amgen shall (i) within [*] after the end of each calendar quarter with respect to Net Revenues of Products in such calendar quarter specifying for such calendar quarter (in confirmed figures, or reasonable estimates if firm figures are not available) the amount of Net Revenues, the royalty rate and the amount of royalty payable on such Net Revenues and (ii) make the royalty payments owed to BeiGene hereunder in accordance with such royalty report in arrears, within [*] from the end of the calendar quarter in which such payment accrues. BeiGene shall keep such reports confidential and shall not disclose them to any Third Party other than BeiGene's consultants and accountants that are obligated to keep such information confidential.

Section 7.11 Payments. Payments pursuant to this Article VII (Financial Consideration) will be made in accordance with the provisions of Article VIII (Payments).

ARTICLE VIII.

PAYMENTS

Section 8.1 Appropriate Measure of Value. Each of the Parties acknowledges that (i) the value provided by the other Party hereunder is comprised of many related items, including performance of various services, access to development, regulatory, manufacturing and commercial expertise, clinical data and other financial and non-financial consideration and that (ii) the amount of the Supply Price and the ratio of cost sharing set forth herein are intended to capture such value as an aggregate. Therefore, the increase, decrease or lapse of any particular items or rights, including Patent rights and allocation of operational responsibilities between the Parties, will not affect the amount of such payment or the ratio of cost sharing, and the Parties agree that both the amount and duration of such payment and the ratio of revenue and cost sharing are reasonable.

Section 8.2 No Other Compensation. Other than as explicitly set forth in this Agreement, neither Party will be obligated to pay any additional fees, milestone payments, royalties or other payments of any kind to the other hereunder.

Section 8.3 Currency.

8.3.1 Payments. All payments made hereunder between the Parties will be made in United States Dollars (US$) or as otherwise agreed by the Parties. For the avoidance of doubt, the Parties acknowledge that payments to Third Parties may be made in RMB from time to time. Each Party will pay all sums due hereunder by wire transfer, or electronic funds transfer (EFT) in immediately available funds. If the EFT option is chosen by Amgen or BeiGene, a completed electronic funds transfer form will be provided in a timeframe that facilitates timely payment. Each Party will promptly notify the other Party of the appropriate account information to facilitate any such payments. All amounts set forth in any budget established under this Agreement will be expressed in United States Dollars (US$) and, for reference only, also stated in RMB. Notwithstanding anything in this Agreement to the contrary, United States Dollars (US$) shall be the controlling currency for all purposes under this Agreement, including budgeting and cost reimbursement, cost overruns and related calculations.

8.3.2 Invoices. The Parties shall work to ensure that an appropriately detailed invoice is prepared and delivered in connection with the quarterly Final Balancing Payment owed hereunder by one Party to the other. The party receiving the quarterly Final Balancing Payment shall prepare and send the invoice to the paying party. Payment will be made pursuant to the terms in Section 7.7.

Any invoices sent to Amgen shall be addressed to:

Amgen Inc.
Accounts Payable
PO Box 667

Newbury Park, CA 92319-0667
Attention Partnership Accounting

Any invoices sent to BeiGene shall be addressed to:

BeiGene Switzerland GmbH
Accounts Payable
c/o VISCHER AG
Aeschenvorstadt 5,
4051 Basel, Switzerland

With an electronic copy sent to: [*]

8.3.3 Conversions. With respect to amounts required to be converted into another currency for calculation or payment hereunder, such amounts will be converted using a rate of exchange which corresponds to the rate used for conversion between the relative currencies by whichever Party recorded the relevant receipt or expenditure, for the respective reporting period in its books and records that are maintained in accordance with U.S. GAAP or China GAAP, as the case may be. If a Party is not required to perform such a currency conversion for its U.S. GAAP or China GAAP reporting with respect to the applicable period, then for such period such Party will make such conversion using the rate of exchange which corresponds to the noon buying rate as published in the Wall Street Journal, Eastern U.S. Edition on the second to last business day of the calendar quarter (or such other publication as agreed-upon by the Parties) in which such receipt or expenditure was incurred.

Section 8.4 Audits.

8.4.1 Accounting. Each Party will keep complete and accurate records pertaining to the activities to be conducted hereunder in sufficient detail to permit the other Party (the "Auditing Party") to confirm the accuracy of financial reports, calculation of Costs (including Manufacturing Actual Costs, Amgen Pipeline Product Global Development Costs, BeiGene Pipeline Global Development Costs and Commercialization and Related Costs) and the amount of payments due hereunder, and such records will be open (in such form as may be available or reasonably requested) to inspection during the Term of this Agreement and for an additional [*] following the end of the last period to which they pertain. The Auditing Party will have the right, at its own expense to have an independent, certified public accountant, selected by it, perform a review (once annually unless a significant discrepancy is observed), of the records of the other Party (the "Audited Party") applicable to the accuracy of financial reports, calculation of Costs (including Manufacturing Actual Costs, Amgen Pipeline Product Global Development Costs, BeiGene Pipeline Global Development Costs and Commercialization and Related Costs) and the amount of payments due hereunder (including any records kept in the ordinary course of the Audited Party's business) during regular business hours, with not less than [*] advance written notice and under reasonable obligations of confidentiality. The report of such accountant will be made available to both Parties simultaneously, promptly upon its completion. The Auditing Party's right to perform an audit pertaining to any calendar year will expire [*] after the end of such year and the books and records for any particular calendar year will only be subject to [*]. Should an inspection pursuant to this Section 8.4 (Audits) lead to the discovery of a discrepancy in the accuracy of financial reports, calculation of Costs (including Manufacturing Actual Costs, Amgen Pipeline Product Global Development Costs, BeiGene Pipeline Global Development Costs and Commercialization and Related Costs) and the amount of payments due hereunder, then the appropriate Party will pay to the other the amount of the discrepancy (plus, if the error was in favor of the Auditing Party, interest accrued at the Contract Interest Rate, compounded annually from the day the relevant payment(s) were due). The Auditing Party will pay for any audit under this Section 8.4 (Audits); *provided* that if a payment discrepancy was greater than [*] of the correct amount for the audited period and the discrepancy was in favor of the Audited Party, then the Audited Party will pay the reasonable out-of-pocket cost of such inspection. This Section 8.4 (Audits) does not apply to or include pharmacovigilance audits, manufacturing audits or regulatory inspections.

8.4.2 Compliance. Each Party will also keep complete and accurate records pertaining to the activities to be conducted hereunder in sufficient detail to permit the Auditing Party to confirm the other Party's compliance with its obligations under Section 12.4 (Mutual Covenants). Such records will be open (in such form as may be available or reasonably requested) to inspection for [*] following the end of the period to which they pertain; *provided* that such records shall be subject to audit no more than once per calendar year except in the event that additional compliance issues are identified during such audit or otherwise, in which case additional audits shall be permitted. The Auditing Party will have the right to use its own internal auditing team or, at its own expense, an external auditing team selected by it, to perform a review of the records of the Audited Party. The audits will occur during regular business hours, with not less than [*] advance written notice and under reasonable obligations of confidentiality, unless the audits are requested by a Governmental Authority, in which case the Parties agree such notice period does not apply. The

Audited Party will cooperate with the Auditing Party and, if applicable, the Governmental Authority, in these audits.

8.4.3 Sales Force and Other Personnel Audit. During regular business hours, with not less than [*] advance written notice and under reasonable obligations of confidentiality, BeiGene will permit Amgen or its authorized representatives to: (i) have access to the records of Sales Force Costs and Other Personnel Costs and activities maintained by BeiGene for purposes of verifying the accuracy of reports described in Section 5.7.1 (Reporting); and (ii) audit such records; *provided* that such audits may not be performed by Amgen more than once per calendar year, such records will be open (in such form as may be available or reasonably requested) to inspection for at least [*] following the end of the period to which they pertain, and such records for any particular calendar year will only be subject to [*]. Any and all audits undertaken pursuant to this Section 8.4.3 (Sales Force and Other Personnel Audits) will be performed at the sole and exclusive expense of the Amgen and will not be included in Amgen Costs or BeiGene Costs, as the case may be, for purposes of calculating Collaboration Profit (Loss). If an audit reveals an overstatement of Sales Force Costs or Other Personnel Costs of greater than [*] of the correct amount for the audited period, then BeiGene will pay the reasonable out-of-pocket cost of such inspection.

Section 8.5 Blocked Currency. Notwithstanding anything to the contrary in this Agreement, for any payment to a Party that is due and payable under this Agreement but is not successfully remitted to such Party upon the first application to the remitting bank in the Collaboration Territory by the other Party or other payor (irrespective of whether the failure to remit payment is because of not passing the bank verification process, or because of ad hoc measures adopted by the Governmental Authorities in the Collaboration Territory from time to time, or because approval is required from Governmental Authorities in the Collaboration Territory, or for any other reason), the paying Party shall (i) as a guarantee and not as settlement, make payment of an equivalent amount in local currency to an account in a bank or depository in the Collaboration Territory of the payee Party Affiliate designated by the payee Party in writing, (ii) immediately take all steps that are necessary or appropriate to rectify the inability to pay the payee Party, including but not limited to initiating the proper approval process if applicable, and (iii) at such time as the inability to pay has been rectified, immediately pay to the payee Party the original amount that was due and payable at the time of deposit, notwithstanding any subsequent foreign exchange fluctuations.

Section 8.6 Taxes.

8.6.1 Withholding.

(a) If Applicable Law requires a Party to pay or withhold Taxes with respect to any payment to be made pursuant to this Agreement, the paying Party will notify the other in writing of such payment or withholding requirements prior to making the payment and provide such assistance to the receiving Party, including the provision of such documentation as may be required by a tax authority, as may be reasonably necessary in such Party's efforts to claim an exemption from or reduction of such Taxes. Except as otherwise provided in this Agreement, each Party will withhold any Taxes required by Applicable Law to be withheld from the amount due, remit such Taxes to the appropriate tax authority, and furnish the other Party with proof of payment of such Taxes promptly following payment thereof. If Taxes are paid to a tax authority, each Party will provide the other such assistance as is reasonably required to obtain a refund of Taxes withheld, or obtain a credit with respect to Taxes paid. In the event that the governing tax authority retroactively determines that a payment made by a Party to the other pursuant to this Agreement should have been subject to withholding (or to additional withholding) for Taxes, and such Party (the "Withholding Party") remits such withholding Taxes to the tax authority, the Withholding Party will have the right to offset such amount, including any interest and penalties that may be imposed thereon (except to the extent any such interest or penalties result from the negligence of the Withholding Party), against future payment obligations of the Withholding Party under this Agreement (or, at the option of the Withholding Party, the Withholding Party will have the right to invoice the other Party for such amount, and the other Party will pay such amount within [*] of the receipt of such invoice); *provided* that the Withholding Party may also pursue reimbursement by any other available remedy.

(b) BeiGene hereby represents that it is as of the Execution Date and the Effective Date a tax resident of Switzerland and not a tax resident of China. On the basis of such representation, the Parties acknowledge their mutual understanding that the laws of the United States (and any state thereof) do not, as of the date hereof, require Tax to be withheld on any payment expected to be made by Amgen to BeiGene pursuant to this Agreement (provided that BeiGene delivers to Amgen a properly completed Form W-8BEN-E claiming a royalty withholding tax exemption), and absent a law, change in law, change in facts, or involuntary assessment of Tax by a Governmental Authority of the United States (or any state thereof), Amgen shall not withhold any Tax under the laws of the United States (or any state thereof) with respect to payments made pursuant to this Agreement. BeiGene shall indemnify Amgen for any Loss arising because of a failure to withhold Taxes required to be withheld but not withheld pursuant to this Section 8.6.1(b).

(c) On the basis of the representation in Section 8.6.1(b), the Parties acknowledge their mutual understanding that BeiGene is a tax resident of Switzerland entitled to the benefits of the tax treaty in effect between the United States and Switzerland and that

the laws of China do not, as of the date hereof, require Tax to be withheld on any payment expected to be made by Amgen to BeiGene pursuant to this Agreement, and absent a law, change in law, change in facts, or involuntary assessment of Tax by a Governmental Authority of China, Amgen shall not withhold any Tax under the laws of China with respect to payments made pursuant to this Agreement (provided that BeiGene delivers to Amgen a properly completed Form W-8BEN-E indicating that it is a tax resident of Switzerland). BeiGene shall indemnify Amgen for Losses arising because of a failure to withhold Taxes required to be withheld but not withheld pursuant to this Section 8.6.1(c).

8.6.2 Indirect Taxes. Unless otherwise mutually agreed by both Parties, all payments made pursuant to this Agreement are exclusive of Indirect Taxes. If BeiGene is liable to value-added tax and related surcharges in the Collaboration Territory (collectively, "China Turnover Tax") on any payment received from Amgen, BeiGene shall separately list the amount of China Turnover Tax on its invoice to Amgen, calculated at the rates and methods prescribed by Applicable Law, and Amgen shall pay the amount of the China Turnover Tax to BeiGene, which shall be solely responsible for the payment of the China Turnover Tax to the relevant Governmental Authority. If Amgen is liable for the China Turnover Tax on any payment received from BeiGene, Amgen shall separately list the amount of the China Turnover Tax on its invoice to BeiGene, calculated at the rates and methods prescribed by Applicable Law, and BeiGene shall pay the China Turnover Tax to the relevant Governmental Authority as a withholding agent on behalf of Amgen (but shall not withhold such tax from the payment to Amgen). If Indirect Taxes other than China Turnover Tax are chargeable in respect of any payments, the paying party shall pay such Indirect Taxes at the applicable rate in respect of such payments following receipt, where applicable, of an Indirect Taxes invoice in the appropriate form issued by the receiving Party in respect of those payments. The Parties shall issue invoices for all amounts payable under this Agreement consistent with Indirect Tax requirements and irrespective of whether the sums may be netted for settlement purposes. The Parties shall cooperate and use all reasonable efforts to obtain exemption, zero-rating, or other preferential treatment in respect of any Indirect Tax. If any amount of Indirect Tax is refunded by the applicable Governmental Authority or other fiscal authority subsequent to payment, the Party receiving such refund will transfer such amount to the paying Party within [*] of receipt. [*]

8.6.3 Employee Taxes. Each Party shall be responsible for taxes based on, imposed on or calculated by reference to any person employed by that Party.

8.6.4 Cooperation and Actions Requiring Consent.

(a) Each Party shall, with respect to any Taxes for which the other Party may be liable, (i) reasonably assist and cooperate with the other Party in preparing for or filing any Tax claim, Tax audit of, or dispute with any Governmental Authority regarding, and any judicial or administrative proceeding relating to, liability for Taxes, and in the preparation of or conduct of litigation or investigation of claims in connection with the preparation of financial statements or other documents to be filed with any Governmental Authority in relation to Taxes; (ii) make available to the other Party and to any Governmental Authority, as reasonably requested, all information, records and documents relating to Taxes relating to the Agreement; (iii) provide timely notice to the other Party of any pending or threatened Tax audits or assessments relating to the Agreement, and (iv) furnish the other Party hereto with copies of all correspondence received from any Governmental Authority in connection with a Tax audit or information request with respect to a Tax. For the avoidance of doubt, the cooperation noted in this Section 8.6.4 shall include signing any Tax returns, amended Tax returns, claims or other documents with respect to any Tax controversy or proceeding, with respect to Taxes, the retention and (upon the other Party's request) the provision of records and information which are reasonably relevant to any such audit, litigation or other proceeding and making employees available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder.

(b) A Party (the "First Party") shall not, with respect to any Tax matter, (i) contest an involuntary tax assessment that may give rise to a Tax for which the other Party may be liable or incur a Loss, without the written consent of the other Party (which consent shall not be unreasonably withheld, conditioned or delayed), (ii) extend or waive, or cause to be extended or waived, any statute of limitations or other period for the assessment of any Tax or deficiency, (iii) initiate any voluntary disclosure or other communication with any Governmental Authority, or (iv) settle any such Tax matter or contest, unless (with respect to clauses (i), (ii), (iii) or (iv) of this Section 8.6(b), as applicable) the First Party agrees to indemnify the other Party for the amount of any Tax that is imposed on the other Party as a result of the First Party taking any such action.

Section 8.7 Late Payment. Any payments or portions thereof due hereunder which are not paid when due (other than amounts subject to a good faith dispute) will bear interest at the Contract Interest Rate, compounded annually, calculated on the number of days such payment is delinquent; *provided* that any amounts subject to such good faith dispute that are subsequently determined to be owed shall be subject to such interest calculated from the date such payment was initially due. This Section 8.7 (Late Payment) will in no way limit any other remedies available to either Party.

Section 8.8 Change in Accounting Periods. From time to time, either of the Parties may change its accounting and financial

reporting practices from calendar quarters and calendar years to fiscal quarters and fiscal years or vice versa. If a Party notifies the other in writing of a change in its accounting and financial reporting practices from calendar quarters and calendar years to fiscal quarters and fiscal years or vice versa, then thereafter, beginning with the period specified in the notice, the Parties will cooperate to determine a way to report and reconcile each Party's accounting periods so as to facilitate payments to be made hereunder.

ARTICLE IX.

DISTRACTING PRODUCTS

9.1.1 General. On a Product-by-Product basis and during the Exclusivity Period with respect to such Product, except as otherwise set forth in Sections 9.1.2 (Mutual Restrictions), 9.1.3 (Amgen Exceptions) and 9.2 (Pre-Clinical Development Programs), each Party shall not itself (and each Party shall ensure that its Affiliates do not), conduct or participate in, or advise, assist or enable any of its Affiliates or any Third Party to conduct or participate in, any Distracting Program (the "Distracting Program Restriction") in the Collaboration Territory or the ROW as specified in Section 9.1.2 (Mutual Restrictions) below.

9.1.2 Mutual Restrictions. With respect to each Party's obligations, the Distracting Program Restriction shall apply as follows:

(a) Collaboration Territory. For a Distracting Product corresponding to a Product, the Distracting Program Restriction shall apply to each Party's and each of its Affiliates' activities with respect to such Distracting Program in the Collaboration Territory during the applicable Exclusivity Period.

(b) ROW. For a Distracting Product corresponding to a Product, the Distracting Program Restriction shall apply to each Party's and each of its Affiliates' activities with respect to such Distracting Program in the ROW during the applicable Exclusivity Period with respect to the corresponding Product, *provided* that each Party shall be permitted to:

(i) initiate [*] of an [*] Distracting Product in the ROW following [*]; and/or

(ii) [*] obtain rights to a Distracting Product and thereafter:

(A) [*] such Distracting Product at any time; and

(B) on a country-by-country basis, [*] such [*] Distracting Product in such country following the [*] in such country.

Notwithstanding anything to the contrary in this Section 9.1.2(b), except as set forth in Section 9.1.3, in no event shall either Party [*] with respect to a Distracting Product that is a [*] at any time during the Exclusivity Period with respect to such Product.

9.1.3 Amgen Exceptions. Amgen's Distracting Program Restrictions shall not apply [*]. In addition, notwithstanding anything to the contrary in Sections 9.1.1 or 9.1.2, Amgen shall be permitted to [*] at any time. In the event that Amgen [*], Amgen shall notify BeiGene within [*] of such event, which notice shall include [*]:

(a) [*].

(b) [*].

9.1.4 Suspended Products.

(a) If BeiGene reasonably believes that a Pipeline Product has become a Suspended Product, then BeiGene shall have the right to provide written notice to Amgen of the same. Upon receipt of such written notice, the Parties, acting through the JSC, shall discuss the matter within [*] of such notice.

(b) Thereafter, Amgen shall have the right within [*] after the JSC meeting to either (i) dispute such notice pursuant to Section 15.4, (ii) provide BeiGene with a reasonable plan of action to restart substantive efforts and activities to Develop such Product and begin such efforts and activities within [*] thereafter or (iii) acknowledge that such Product shall be deemed a Suspended Product hereunder. For any Suspended Product, the Distracting Program Restriction shall no longer apply with respect to activities in the ROW but shall continue to apply with respect to the Collaboration Territory until the end of the applicable

Exclusivity Period.

(c) Notwithstanding the foregoing, if at any time Amgen provides written notice to BeiGene which notice contains a reasonable plan of action to restart substantive efforts and activities to Develop such Suspended Product, the Suspended Product shall no longer be deemed a Suspended Product, *provided* that [*] and the Agreements shall terminate with respect to such Product in the ROW. If BeiGene notifies Amgen that it will Divest or terminate all activities with respect to such Distracting Program in accordance with Section 9.3.1 or 9.3.2 (provided that all references to closing of the Distracting Transaction shall instead be deemed to refer to Amgen's notice under this subsection) then such Product shall no longer be a Suspended Product as of the date of such termination or Divestment of the Distracting Product.

Section 9.2 Pre-Clinical Development Activities. Notwithstanding anything in this Article IX (Distracting Products), each Party and its Affiliates will have the right to conduct pre-clinical development activities and non-commercial manufacturing activities for any Distracting Products.

Section 9.3 Distracting Transactions; Notice. Notwithstanding anything to the contrary herein, it shall not be deemed a breach of the Distracting Program Restriction by a Distracted Party if such Distracted Party enters into a Distracting Transaction and such Distracted Party complies with its obligations under this Section 9.3 (Distracting Transactions; Notice). If a Party enters into a Distracting Transaction (in each instance, the "Distracted Party") then it will provide notice to the other Party (the "Affected Party"), within [*] business days after the first public announcement or disclosure of such Distracting Transaction and if no public announcement or disclosure occurs, [*] business days after the closing of such transaction (the "Distracting Transaction Notice"), describing in reasonable detail, to the extent permitted by Applicable Law and without disclosing any proprietary information, the Distracting Program. During the pendency of any potential Distracting Transaction, and until the provisions of either Section 9.3.1 (Divestiture) or Section 9.3.2 (Termination) are fully implemented, the Distracted Party will Segregate the Distracting Program from programs for the Products. Any notice provided pursuant to this Section 9.3 (Distracting Transactions; Notice) shall include a notification as to whether the Distracted Party intends to Divest or terminate the Distracted Program.

9.3.1 Divestiture of a Distracting Transaction. If the Distracted Party elects to Divest a Distracting Program arising from the Distracting Transaction, then it will Divest such Distracting Program within [*]. If the Distracted Party fails to complete a Divestiture of the Distracting Program within [*], then the Distracted Party will be deemed to have chosen to terminate the Distracting Program, effective as of [*], and will promptly comply with the requirements of Section 9.3.2 (Termination); *provided* that if at the expiration of such [*] period, the Distracted Party has agreed terms with a Third Party to Divest the Distracting Program arising from the Distracting Transaction then such [*] period will be extended as required for the Distracted Party and such Third Party to consummate the transaction, but in no event will such extension exceed an additional [*].

9.3.2 Termination of a Distracting Transaction. If the Distracted Party elects to terminate a Distracting Program arising from a Distracting Transaction, it will terminate all activities of such Distracting Program within [*] (other than any Clinical Studies or other activities which are being completed solely for ethical, regulatory, or legal obligations to complete the same and not for the purpose of obtaining Regulatory Approval). [*]

Section 9.4 Reasonable Restrictions. The Distracted Party acknowledges the provisions of this Article IX (Distracting Products) are reasonable and necessary to protect the legitimate interests of the Affected Party and to encourage the free sharing of information between the Parties with respect to Products, and the Distracted Party agrees not to contest such limitations in any proceeding. The Distracted Party acknowledges that the Affected Party would not have entered into this Agreement absent the restrictions set forth in this Article IX (Distracting Products) and that a breach or threatened breach of this Article IX (Distracting Products) would be likely to result in irreparable harm to the Affected Party for which there is no adequate remedy at law. Therefore, the Affected Party will be entitled to obtain from any court of competent jurisdiction injunctive relief, specific performance, and an equitable accounting of any earnings, profits or benefits arising out of any such breach. Nothing in this Section 9.4 (Reasonable Restrictions) is intended or will be construed to limit in any way either Party's right to equitable relief or any other remedy for breach of this or any other provision of this Agreement.

ARTICLE X.

INTELLECTUAL PROPERTY

Section 10.1 Program Intellectual Property Ownership. Except as provided below in this Section 10.1 (Program Intellectual Property Ownership), each Party will solely own all right, title, and interest in and to all Program Intellectual Property that are made by or on behalf of such Party, solely or independent of the other Party, and all intellectual property rights related thereto, and any Program Intellectual Property that is jointly made will be owned jointly by the Parties. Notwithstanding the foregoing, all right, title

and interest in and to any Program Intellectual Property that constitutes improvements, modifications or enhancements to a Product which (i) was generated or conceived by Amgen, BeiGene or their respective Affiliates, whether solely or jointly (or together with a Third Party), during the Term as a result of carrying out the Designated Amgen Activities or the Designated BeiGene Activities, as applicable, (ii) is a modification, derivative, or improvement of the Products or related to the manufacturing or formulating of the Products or (iii) is a new or novel use of the Products (collectively referred to herein as "Amgen Program Intellectual Property") shall automatically vest solely in Amgen. BeiGene, for itself and on behalf of its Affiliates and their respective sublicensees, subcontractors, employees, consultants and agents, hereby assigns (and to the extent such assignment can only be made in the future hereby agrees to assign), to Amgen all right, title and interest in and to all Amgen Program Intellectual Property. Inventorship will be determined according to United States patent law (without reference to any conflict of law principles). Each Party shall be solely responsible for any compensation or remuneration for its personnel for any Program Intellectual Property generated by such personnel in accordance with the compensation policies of Amgen or BeiGene, as applicable, or as otherwise required in accordance with Section 6.7 (Management of Personnel). Notwithstanding the foregoing, if Amgen agrees to conduct (or allows BeiGene to conduct) one or more Clinical Studies involving the combination of a Product with a BeiGene product, then before initiating any such combination study, the Parties shall negotiate a separate agreement with respect to the same which may, among other things, contain different terms with respect to the supply of Product and the ownership, prosecution, defense and enforcement of any intellectual property arising thereunder.

Section 10.2 Copyright Ownership. Except as expressly provided in this Agreement, each Party will own all right, title, and interest in and to all Copyrights created pursuant to this Agreement that are authored by or on behalf of such Party, solely or independent of the other Party, and all intellectual property rights related thereto. The Parties will jointly own all right, title, and interest in and to all Copyrights created pursuant to this Agreement that are authored by or on the behalf of the Parties jointly, and all intellectual property rights related thereto.

Section 10.3 Product Trademarks. The Parties hereby agree that in the event that BeiGene is permitted to use a product trademark in connection with a Product, BeiGene shall select a product trademark for use in connection with such Product; *provided* that such Product Trademarks have been accepted by the Regulatory Authority and approved by the JSC for use in the Collaboration Territory and such use is permitted by Applicable Law; and *provided further* that if a product trademark would reasonably be expected to have a material adverse impact on Amgen's exploitation of any Product outside the Collaboration Scope, the selection of such product trademark by BeiGene for use in connection with a Product shall be subject to Amgen's prior written consent. Notwithstanding anything herein to the contrary, Amgen will own all right, title and interest in all Product Trademarks and any goodwill related thereto and BeiGene, for itself and on behalf of its Affiliates and their respective sublicensees, subcontractors, employees, consultants and agents, hereby assigns (and to the extent such assignment can only be made in the future hereby agrees to assign) to Amgen all right, title and interest in and to such Product Trademarks and all goodwill applicable thereto.

Section 10.4 Joint Ownership. Except as expressly provided in this Agreement, it is understood that neither Party will have any obligation to obtain any approval or consent of, nor pay a share of the proceeds to or account to, the other Party to practice or enforce Program Intellectual Property or intellectual property (including Copyrights) owned jointly by the Parties hereunder, and each Party hereby waives any right it may have under the laws of any jurisdiction to require such approval, consent or accounting. Each Party agrees to cooperate with the other Party, as reasonably requested, and to take such actions as may be required to give effect to this Section 10.4 (Joint Ownership) in a particular country, including by promptly executing and recording assignments and other documents consistent with such ownership.

Section 10.5 License Grant by Amgen. Amgen hereby grants and causes its Affiliates to grant to BeiGene and its Affiliates during the Term a co-exclusive (with Amgen), fully-paid, royalty-free license to Amgen Intellectual Property and Program Intellectual Property in each case to the extent Controlled by Amgen, solely (i) to the extent necessary to conduct the Designated BeiGene Activities and (ii) to exercise and perform BeiGene's other rights and obligations under the terms of this Agreement. Such license is sublicensable by BeiGene or its Affiliates solely in accordance with Section 6.6 (Use of Affiliates and Third Party Contractors).

Section 10.6 License Grant by BeiGene. BeiGene hereby grants and causes its Affiliates to grant to Amgen and its Affiliates a co-exclusive (with BeiGene), fully-paid, royalty-free license to Program Intellectual Property solely (i) to the extent necessary to conduct the Designated Amgen Activities and (ii) to exercise and perform Amgen's other rights and obligations under the terms of this Agreement. The foregoing license is sublicensable by Amgen or its Affiliates in accordance with Section 6.6 (Use of Affiliates and Third Party Contractors). Additionally, BeiGene hereby grants and causes its Affiliates to grant to Amgen and its Affiliates a non-exclusive, irrevocable, fully-paid, royalty-free, world-wide license with the right to sublicense under any Patent within the BeiGene Pre-Existing Intellectual Property that is used by BeiGene, or provided by BeiGene to Amgen for use, during the Term in the performance of this Agreement solely to the extent necessary to make, have made, sell, offer for sale and import

Products for all uses inside and outside the Collaboration Territory.

Section 10.7 Prosecution and Maintenance of Patents.

10.7.1 Amgen Intellectual Property. Subject to Section 10.13, Amgen will have the sole right to control, itself or through outside counsel, and have final decision making authority with respect to the worldwide (including inside and outside the Collaboration Territory) Prosecution and Maintenance of the Patents within (i) the Amgen Intellectual Property in the Collaboration Territory that claim a Product, (ii) the Program Intellectual Property owned solely by Amgen, and (iii) Amgen Program Intellectual Property, and in each case with respect to preparation and filing for any Patent Extensions. Amgen will keep BeiGene informed as to material developments with respect to the Prosecution and Maintenance of such Amgen Intellectual Property including by providing copies of all substantive office actions, examination reports, communications or any other substantive documents to or from any patent office, including notice of all interferences, reissues, re-examinations, inter partes reviews, post grant proceedings, oppositions or requests for patent term extensions. Amgen will also provide BeiGene with a reasonable opportunity to comment substantively on the Prosecution and Maintenance of such Amgen Intellectual Property prior to taking material actions (including the filing of initial applications), and will in good faith consider any comments made by, and actions recommended by, BeiGene; *provided* that BeiGene provides its comments consistent with any applicable filing deadlines. The foregoing rights and obligations shall be subject to the terms and conditions of Amgen's in-license agreements with Third Parties with respect to any in-licensed Intellectual Property.

10.7.2 BeiGene Intellectual Property. BeiGene will have the sole right at its sole expense to control, itself or through outside counsel, and have final decision making authority with respect to the Prosecution and Maintenance of the Patents within (i) the BeiGene Pre-Existing Intellectual Property in the Collaboration Territory that claim a Product and (ii) the Program Intellectual Property owned solely by BeiGene.

Section 10.8 Defense and Settlement of Third Party Claims of Infringement and Other Proceedings. If a Third Party asserts that Patents, Know-How or other rights owned or controlled by it are infringed by the activities hereunder of either of the Parties, then defense of such claim (an "Infringement or Invalidity Claim") will be managed in accordance with the provisions of Section 13.4 (Defense of Third Party Claims), with coordination and cooperation between the Parties occurring via the Patent Coordinators. If Amgen seeks to initiate a nullification, declaratory judgment, revocation, or opposition proceeding against any such Patents, Know-How or other rights in response to prospective or actual Infringement or Invalidity Claims, the Parties will coordinate and cooperate in regard to such proceedings in accordance with the procedures set forth in Section 13.4 (Defense of Third Party Claims), with coordination and cooperation between the Parties occurring via the Patent Coordinators. In the event any such nullification, declaratory judgment, revocation, or opposition proceeding is initiated prior to the First Commercial Sale of a Product in the Collaboration Territory, Amgen shall be responsible for all amounts payable to a Third Party in connection with such proceeding. The foregoing rights and obligations shall be subject to the terms and conditions of Amgen's in-license agreements with Third Parties with respect to any in-licensed Intellectual Property.

Section 10.9 Enforcement. Except as expressly set forth in this Section 10.9 (Enforcement), each Party will retain all its rights to control the enforcement of its own intellectual property. Subject to Section 10.13, Amgen will have the sole right (but not the obligation) to enforce the Amgen Intellectual Property or Program Intellectual Property against any Third Party that is developing, manufacturing, selling, or importing a product or service that competes with a Product; *provided* that BeiGene will have the right to approve or disapprove in writing any settlement of any claim, suit or action involving intellectual property in the Collaboration Territory that admits the invalidity or unenforceability of BeiGene Pre-Existing Intellectual Property or imposes on BeiGene restrictions or obligations. Amgen shall not be prohibited from entering into a settlement that (i) does not admit the invalidity or unenforceability of BeiGene Pre-Existing Intellectual Property or (ii) involves only one or more countries outside the Collaboration Territory. BeiGene shall reasonably assist Amgen in enforcing any such rights under this Section 10.9 (Enforcement) with respect to any such enforcement in the Collaboration Territory, including, in the event that it is determined that BeiGene is an indispensable party to such action, by being named as a party in such action, and cooperate in any such action at the request of Amgen. Without limiting the foregoing, Amgen will keep BeiGene advised of all material communications, actual and prospective filings or submissions regarding such action in the Collaboration Territory, and will provide BeiGene copies of and an opportunity to review and comment on any such material communications, filings and submissions in the Collaboration Territory (provided that Amgen will have the right to redact any device and manufacturing information and any information relating to any product other than Products from any such materials) and will reasonably consider comments of BeiGene. All Recoveries, after each Party is first reimbursed for any Costs incurred in connection with enforcing or assisting in the enforcement of such intellectual property, will be shared by the Parties at a ratio of [*]. The foregoing rights and obligations shall be subject to the terms and conditions of Amgen's in-license agreements with Third Parties with respect to any in-licensed Intellectual Property.

Section 10.10 Patent Term Extensions. Each non-filing Party will provide reasonable assistance to the filing Party in connection with obtaining supplementary protection certificates, patent term extensions or similar protection for Patents in the Collaboration Territory ("Patent Extensions") within the Product Intellectual Property or otherwise licensed or assigned hereunder as determined by the Patent Coordinators. To the extent reasonably and legally required to obtain any such Patent Extensions in the Collaboration Territory, the non-filing Party will make available to the filing Party copies of all necessary documentation to enable the filing Party to use the same for the purpose of obtaining Patent Extensions in the Collaboration Territory. Notwithstanding Section 10.7 (Prosecution and Maintenance of Patents) above, the Amgen Patent Coordinator, subject to good faith discussions with the BeiGene Patent Coordinator, will have the right to make the final decision as to which Patents in the Collaboration Territory within Program Intellectual Property will be extended with respect to the Products; *provided* that Amgen shall consider the impact of such final decision on the sales of the Products in the Collaboration Territory. The foregoing rights and obligations shall be subject to the terms and conditions of Amgen's in-license agreements with Third Parties with respect to any in-licensed Intellectual Property.

Section 10.11 Trademarks.

10.11.1 Title. Amgen will own all right, title and interest in and to the Product Trademarks. BeiGene will not, and will ensure that its Affiliates do not: (i) challenge any Product Trademark or the registration thereof in any country; (ii) file, register or maintain any registrations for any trademarks or trade names that are identical or confusingly similar to any Product Trademark in any country without the express prior written consent of Amgen; or (iii) authorize or assist any Third Party to do the foregoing. Amgen will have the sole right to control, itself or through outside counsel, and have final decision making authority with respect to the worldwide (including inside and outside the Collaboration Territory) file, register or maintain the Product Trademarks. Amgen will keep BeiGene informed as to such actions in the Collaboration Territory including by providing copies of all substantive filings, communications or any other substantive documents to or from any trademark office. Amgen will also provide BeiGene with a reasonable opportunity to comment substantively on the filing, registering and maintaining of such Product Trademarks inside the Collaboration Territory prior to taking material actions (including the filing of initial applications), and will in good faith consider any comments made by, and actions recommended by, BeiGene; *provided* that BeiGene provides its comments consistent with any applicable filing deadlines. The foregoing rights and obligations shall be subject to the terms and conditions of Amgen's in-license agreements with Third Parties with respect to any in-licensed Intellectual Property.

10.11.2 Required Use and Compliance.

(a) Promotional Materials and all packaging, labeling and package inserts for Products in the Collaboration Scope will display the Amgen Housemarks and the BeiGene Housemarks in equal prominence to the extent allowed by Applicable Law and in accordance with the Commercialization Plan. Once approved by the Regulatory Authority, Amgen will as soon as practicable label Product with BeiGene and Amgen logos displayed of equal size with the BeiGene logo positioned on the left or top.

(b) Each Party agrees that it and its Affiliates will: (i) ensure that each use of the Product Trademarks and the other Party's Housemarks by such Party is accompanied by an acknowledgement that such Product Trademarks are owned by Amgen and such Housemarks are owned by the other Party; (ii) not use such Product Trademarks or the other Party's Housemarks in a way that might materially prejudice their distinctiveness or validity or the goodwill of the other Party therein; and (iii) not use any trademarks or trade names so resembling any of such Product Trademarks or the other Party's Housemarks as to be likely to cause confusion or deception. All use of the other Party's Housemarks shall be subject to the prior written approval of such other Party. Each Party shall comply with the other Party's trademark policies and guidelines when using such other Party's Housemarks and shall upon written request provide samples and specimens of any intended or prior use of such other Party's Housemarks.

10.11.3 Product Trademark and Housemark Licenses.

(a) To BeiGene. Amgen hereby grants to BeiGene a non-exclusive, royalty-free license to use the Amgen Housemarks and Product Trademarks solely as set forth in the Promotional Materials and other materials provided to it by Amgen, and solely to develop, manufacture and commercialize Products in the Collaboration Scope in accordance with the Global Brand Plan, the Commercialization Plan and this Agreement.

(b) To Amgen. BeiGene hereby grants to Amgen a non-exclusive, royalty-free license to use the BeiGene Housemarks solely as set forth in the Promotional Materials and other materials provided to it by BeiGene, and solely to develop, manufacture and commercialize Products in the Collaboration Scope in accordance with the Global Brand Plan, the Commercialization Plan and this Agreement.

10.11.4 Respect of Trademarks. BeiGene will not have, assert or acquire any right, title or interest in or to any Amgen

Housemarks or Product Trademarks or the goodwill pertaining thereto, and Amgen will not have, assert or acquire any right, title or interest in or to any BeiGene Housemarks or the goodwill pertaining thereto, in each case by means of entering into or performing under this Agreement, except in each case for the limited licenses explicitly provided in this Agreement. BeiGene shall not use or register any mark or domain name or social media account which is confusingly similar to the Amgen Housemarks or Product Trademarks, without the prior written consent of Amgen, and Amgen shall not use or register any mark or domain name or social media account which is confusingly similar to the BeiGene Housemarks, without the prior written consent of BeiGene.

10.11.5 Notice of Infringement. Amgen and BeiGene each will monitor the Product Trademarks against infringing uses within the Collaboration Scope and each Party will promptly notify the other Party of any infringement or threatened infringement of any of the Product Trademarks of which it becomes aware. Amgen will determine what action, if any, to take in response to any such infringement or threatened infringement of any Product Trademark. Upon the reasonable request of Amgen, BeiGene shall provide Amgen with reasonable information and assistance in connection with the potential infringement of the Product Trademarks in the Collaboration Territory.

Section 10.12 Personnel Obligations. Prior to beginning any development or commercialization of any Product under this Agreement, each employee, agent or independent contractor of Amgen or BeiGene or of either Party's respective Affiliates shall be bound by non-disclosure and invention assignment obligations which are consistent with the obligations of Amgen or BeiGene, as applicable, in this Section 10.12 (Personnel Obligations), to the extent permitted by Applicable Law, including: (i) promptly reporting any Program Intellectual Property discovery, process or other intellectual property right; (ii) assigning to Amgen or BeiGene, as applicable, all of his or her right, title and interest in and to any Program Intellectual Property, discovery, process or other intellectual property right; *provided* that, for the avoidance of doubt, the foregoing provision shall not be applicable to an Amgen Third Party contractor manufacturer or partner that develops or co-develops intellectual property related to any such Product; (iii) taking actions Amgen deems reasonably necessary to secure patent protection; (iv) performing all acts and signing, executing, acknowledging and delivering any and all documents required for effecting the obligations and purposes of this Agreement; and (v) abiding by the obligations of confidentiality and non-use set forth in Article XI (Confidentiality, Publications and Press Releases). It is understood and agreed that such non-disclosure and invention assignment agreement need not reference or be specific to this Agreement.

Section 10.13 No Prejudicial Action. Notwithstanding anything to the contrary in this Agreement, Amgen hereby agrees that it shall not undertake any action, or make any decision, with respect to the Prosecution and Maintenance of Patents pursuant to Section 10.7.1, the defense or settlement of Infringement of Invalidity Claims pursuant to Section 10.8 or the enforcement of Amgen Intellectual Property or Program Intellectual Property pursuant to Section 10.9, in each case, in the Collaboration Territory that would reasonably be expected to [*].

ARTICLE XI.

CONFIDENTIALITY, PUBLICATIONS AND PRESS RELEASES

Section 11.1 Confidentiality; Exceptions. Except to the extent expressly authorized by this Agreement or otherwise agreed in writing, the Parties agree that, during the Term and for [*] thereafter, the receiving Party will keep confidential and will not publish or otherwise disclose or use for any purpose any and all information or materials related to the activities contemplated hereunder that is furnished to it by or on behalf of the other Party pursuant to this Agreement and is identified by the disclosing Party as confidential, proprietary or the like or that the receiving Party has reason to believe is confidential based upon its own similar information (collectively, "Confidential Information"). For clarity, except for rights expressly granted herein, both Parties will have no right to and will not utilize any Confidential Information of the other Party for activities outside the Collaboration Scope or for activities related to products other than the Products. Notwithstanding the foregoing, Confidential Information will not include any information to the extent that it can be established by written documentation by the receiving Party that such information:

11.1.1 was obtained or was already known by the receiving Party or its Affiliates without obligation of confidentiality as a result of disclosure from a Third Party that the receiving Party did not know was under an obligation of confidentiality to the disclosing Party with respect to such information;

11.1.2 was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party through no act or omission of the receiving Party or its Affiliates in breach of this Agreement;

11.1.3 became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving Party or its Affiliates in breach of this Agreement; or

11.1.4 was independently discovered or developed by the receiving Party or its Affiliates (without reference to or use of Confidential Information of the disclosing Party).

Section 11.2 Authorized Disclosure. Except as expressly provided otherwise in this Agreement, each Party may use and disclose Confidential Information of the other Party solely as follows: (i) as reasonably necessary in conducting the activities contemplated under this Agreement; (ii) to the extent pertaining specifically to a Product, for use by Amgen in connection with a Product outside the Collaboration Scope or disclosure by Amgen to a collaborator or licensee for use with respect to a Product outside the Collaboration Scope; (iii) to the extent such disclosure is to a Governmental Authority, as reasonably necessary in filing or prosecuting patent, copyright and trademark applications in accordance with this Agreement, prosecuting or defending arbitration or litigation in accordance with this Agreement, complying with applicable governmental regulations with respect to performance under this Agreement, filing Regulatory Filings, obtaining Regulatory Approval or fulfilling regulatory obligations for a Product, or otherwise required by Applicable Law, including, but not limited to, regulations of the Securities and Exchange Commission, the Stock Exchange of Hong Kong Limited or similar regulatory authority, provided that if a Party is required by Applicable Law to make any such disclosure of the other Party's Confidential Information it will, except where impracticable for necessary disclosures (for example, in the event of medical emergency), give reasonable advance notice to the other Party of such disclosure requirement and, in the case of each of the foregoing exceptions pursuant to this subsection (iii), will use its reasonable efforts to secure confidential treatment of such Confidential Information required to be disclosed; (iv) to advisors (including lawyers and accountants) on a need to know basis in support of the purposes of this Agreement, in each case under appropriate confidentiality provisions or professional standards of confidentiality substantially equivalent to those of this Agreement; (v) to such Party's [*]; provided further, that, prior to any such disclosure, each such disclosee is bound by written obligations of confidentiality, non-disclosure, and non-use at least as restrictive as the obligations set forth in this Article XI to maintain the confidentiality thereof and not to use or disclose such Confidential Information except as expressly permitted by this Agreement; and (vi) to the extent mutually agreed to by the Parties. Neither Party will disclose Confidential Information of the other Party to its personnel or to an Affiliate except to the extent such personnel or Affiliate needs to know such information for the performance of such Party's activities hereunder.

Section 11.3 Confidential Treatment of Terms and Conditions. The Parties agree that the terms and conditions of this Agreement will be Confidential Information of each Party, and such terms and conditions will not be disclosed, except (i) as otherwise permitted under Section 11.2 (Authorized Disclosure) and (ii) if required by Applicable Law (including disclosure of a redacted version of this Agreement in a filing required by the Securities and Exchange Commission, the Stock Exchange of Hong Kong Limited or similar regulatory authority. Notwithstanding the foregoing, with respect to complying with the disclosure requirements of any Governmental Authority in connection with any required filing of this Agreement, the Parties will consult with one another concerning which terms of this Agreement will be requested to be redacted in any public disclosure of this Agreement, and in any event each Party will seek reasonable confidential treatment for any public disclosure by any such Governmental Authority.

Section 11.4 Press Releases. Notwithstanding Section 11.3 (Confidential Treatment of Terms and Conditions), the Parties will each issue a press release to announce the execution of this Agreement, each of which is attached hereto as the Press Release Schedule and is for use in responding to inquiries about this Agreement. Thereafter, BeiGene and Amgen may each disclose to Third Parties (including media interviews and disclosures to financial analysts) the information contained in such press release (but only such information) without the need for further approval by the other; *provided* that such information is still accurate. Each Party will have the right to issue additional press releases and disclosures in regards to the terms of this Agreement only with the prior written consent of the other Party, such consent not to be unreasonably withheld, conditioned or delayed (or as required to comply with Applicable Law). For any such proposed press release or disclosure, the disclosing Party will provide [*] notice to the other Party and will reasonably consider the other Party's comments that are provided within [*] after such notice, or such shorter notice and comment periods as are reasonably required under the circumstances or by Applicable Law but not less than [*].

Section 11.5 Confidential Information Exchanged Prior to the Effective Date. All confidential information exchanged between the Parties and their respective Affiliates prior to the Effective Date (including all confidential information exchanged under the Confidential Disclosure Agreement between Amgen and BeiGene, Ltd., dated [*], will be deemed Confidential Information of the disclosing Party disclosed hereunder and will be subject to the terms of this Agreement.

Section 11.6 Publications and Program Information. Subject to Section 5.5 (Information Concerning Products) with respect to Scientific Exchange, Amgen will have the sole right to approve in advance publications and scientific presentations related to the Products, such approval not to be unreasonably withheld, conditioned or delayed, and to issue press releases (except with respect to the terms of this Agreement, which is governed by Section 11.4 (Press Releases)) or make other public disclosures regarding Products (including with respect to development, commercialization and regulatory matters), and BeiGene will not do so without Amgen's prior written consent, except as required by Applicable Law; *provided* that any publication or presentation to be made by

Amgen that names BeiGene will require the prior consent of BeiGene. Amgen will keep the relevant committee or team informed of its general publication strategy and presentation calendar for Products. The Parties will establish a review process for publications and presentations related to Products specifically generated for use in the Collaboration Territory (for clarity, excluding global publications and presentations used in the Collaboration Territory). Amgen will consider any reasonable comments regarding such publications and presentations specifically generated for use in the Collaboration Territory. If there is any dispute between the Parties with regard to a proposed publication, presentation or other communication regarding this Agreement, such dispute shall be referred to the JSC for resolution (with Amgen having the final decision).

Section 11.7 Attorney-Client Privilege. Neither Party is waiving, nor shall be deemed to have waived or diminished, any of its attorney work product protections, attorney-client privileges or similar protections and privileges as a result of disclosing information pursuant to this Agreement, or any of its Confidential Information (including Confidential Information related to pending or threatened litigation) to the receiving Party, regardless of whether the disclosing Party has asserted, or is or may be entitled to assert, such privileges and protections. The Parties: (i) share a common legal and commercial interest in such disclosure that is subject to such privileges and protections; (ii) are or may become joint defendants in proceedings to which the information covered by such protections and privileges relates; (iii) intend that such privileges and protections remain intact should either Party become subject to any actual or threatened proceeding to which the disclosing Party's Confidential Information covered by such protections and privileges relates; and (iv) intend that after the Effective Date both the receiving Party and the disclosing Party shall have the right to assert such protections and privileges.

ARTICLE XII.

REPRESENTATIONS, WARRANTIES AND COVENANTS

Section 12.1 Mutual Representations and Warranties. Each of the Parties hereby represents and warrants, as of the Execution Date and the Effective Date to the other Party as follows:

12.1.1 it is duly organized and validly existing under the Applicable Law of its jurisdiction of incorporation and it has full corporate power and authority and has taken all corporate action necessary to enter into and perform this Agreement (and, with respect to BeiGene, BeiGene shall have obtained all necessary approvals to execute and perform this Agreement on or before the Effective Date);

12.1.2 this Agreement is a legal and valid obligation binding upon such Party and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement, and compliance with its terms and provisions, and the consummation of the transaction contemplated hereby, by such Party will not conflict, interfere or be inconsistent with, result in any material breach of or constitute a material default under, any agreement, instrument or understanding, oral or written, to which it is a party or by which it is bound, nor to its knowledge violate any Applicable Law. The person or persons executing this Agreement on such Party's behalf have been duly authorized to do so by all requisite corporate action;

12.1.3 neither it nor any of its directors, officers, nor any of its employees has been debarred, excluded or the subject of debarment or exclusion proceedings by any Governmental Authority;

12.1.4 neither it, nor its officers or directors are Sanctioned Persons;

12.1.5 it has not granted any right to any Third Party relating to any intellectual property or proprietary right licensed, granted or assigned by it to the other Party hereunder that conflicts with the rights licensed, granted or assigned to the other Party hereunder;

12.1.6 to its knowledge, it and each of its Representatives have at all times complied with Proper Conduct Practices in connection with the Products (this Section 12.1.5 shall not apply to matters publicly disclosed by Amgen or its Affiliates in filings with the U.S. Securities and Exchange Commission); and

12.1.7 it has established and maintains reasonable internal policies and controls, including codes of conduct and ethics and reasonable reporting requirements, intended to ensure compliance with Anti-Corruption Laws, International Trade Laws, and other Applicable Law, to the extent applicable to such Party, including healthcare compliance, privacy laws and data protection laws.

Section 12.2 Amgen Representations and Warranties. In addition to the representations and warranties set forth in Section 12.1 (Mutual Representations and Warranties), Amgen hereby represents and warrants to BeiGene that, as of the Execution Date and the Effective Date:

12.2.1 To Amgen's knowledge, all issued Patents within Amgen Intellectual Property covering the composition of matter of the active ingredient of any Product in the Collaboration Territory have been filed and maintained properly and correctly and Amgen has not failed to pay any applicable fees on or before the expiration of the applicable grace period for such payment.

12.2.2 It has the full right, power and authority to grant the licenses granted under Section 10.5 (License Grant by Amgen) and neither Amgen nor its Affiliates have granted any right or license to any Third Party relating to any of the Amgen Intellectual Property that would conflict with or limit the scope of any of the rights or licenses granted to BeiGene hereunder.

12.2.3 No claim has been issued and served against Amgen or any of its Affiliates that alleges that any Patent in the Amgen Intellectual Property in the Collaboration Territory is invalid or unenforceable.

12.2.4 Neither Amgen nor its Affiliates have received any written notice of any claim that any Patent or Know-How (including any trade secret right) owned or controlled by a Third Party would be infringed or misappropriated by the development, manufacture, or commercialization of the Products in the Collaboration Territory.

12.2.5 To Amgen's knowledge, the development of the Products in the Collaboration Scope by or on behalf of Amgen has been conducted in compliance in all material respects with all Applicable Law.

Section 12.3 BeiGene Representations and Warranties Regarding Blocking IP. In addition to the representations and warranties set forth in Section 12.1 (Mutual Representations and Warranties), BeiGene hereby represents and warrants to Amgen that, as of the Execution Date and the Effective Date, to BeiGene's knowledge, neither BeiGene nor any of its Affiliates Controls any Patent that Covers a Product. For the purposes of this Section 12.3, "Cover" means with respect to a Patent, a claim that would be infringed by the exploitation of the Product.

Section 12.4 Mutual Covenants. Each Party hereby covenants to the other Party that, during the Term:

12.4.1 it will not grant any right to any Third Party relating to any intellectual property or proprietary right licensed or assigned by it to the other Party hereunder that conflicts with the rights granted to the other Party hereunder;

12.4.2 it will not knowingly use in connection with the research, development, manufacture or commercialization to take place pursuant to this Agreement any employee, consultant or investigator that has been debarred, excluded or the subject of debarment or exclusion proceedings by any Governmental Authority;

12.4.3 it shall comply with all Applicable Law (including Applicable Law relating to data protection and privacy), International Trade Laws, Proper Conduct Practices, Anti-Corruption Laws and the Quality and Compliance Standards in connection with the performance of its rights, duties and obligations under this Agreement;

12.4.4 it shall provide the other Party with any information required for that Party or the Parties to comply with International Trade Laws;

12.4.5 it shall for the Term of this Agreement and [*] thereafter maintain complete and accurate books, accounts, invoices and reasonably detailed records related to this Agreement or any work conducted for or on behalf of such Party under this Agreement including all records required to establish compliance with Section 12.4.3 above;

12.4.6 it shall promptly provide the other Party with written notice of the following events:

(a) upon becoming aware of any breach or violation by a Party of any representation, warranty or undertaking set forth in Section 12.4.3 above or Section 12.4.11 below and in such case it shall cooperate with the other Party in any resulting formal or informal investigation related thereto;

(b) upon receiving a formal or informal notification that it is the target of a formal or informal request for information, subpoena, investigation, litigation, penalty or claim from any Governmental Authority for violation or potential violation of any Anti-Corruption Law, Proper Conduct Practices, or International Trade Laws;

12.4.7 if either Party requests that the other Party complete a compliance certification certifying compliance with Section 12.4.3 above, which request shall occur no more than once per calendar year, such other Party shall promptly complete and deliver such compliance certification truthfully and accurately in the form set forth in the Compliance Certification Schedule;

12.4.8 if either Party requests that the other Party provide additional information as may be reasonably necessary to verify

compliance with the obligations set forth in Section 12.4.3 above, such other Party shall promptly provide such additional information;

12.4.9 prior to beginning any development or commercialization of any Product under this Agreement, each employee, agent or independent contractor of Amgen or BeiGene or of either Party's respective Affiliates involved in the development or commercialization of any Product shall be required to undergo compliance training with respect to Proper Conduct Practices and Anti-Corruption Laws;

12.4.10 it shall use only legitimate and ethical business practices (including Proper Conduct Practices) in connection with activities conducted in connection with this Agreement whether directly, through the use of Representatives or otherwise, and shall not take any action that would subject any other Party to penalties under any Applicable Law;

12.4.11 it shall comply with all applicable International Trade Laws and their respective regulations and obtain all import, export, re-export approvals and licenses required for any goods, services and technical data exchanged or delivered by it and shall retain documentation to support compliance with those laws and regulations, in each case, in connection with activities conducted in connection with this Agreement;

12.4.12 it will not export, directly or indirectly, any technical information acquired from any other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the appropriate agency or other Governmental Authorities in accordance with International Trade Laws or other Applicable Law; and

12.4.13 it shall cause its Affiliates and its and their officers, directors, employees and agents to comply with this Agreement, including the covenants in this Section 12.4 (Mutual Covenants).

Section 12.5 Privacy and Data Protection. Without limiting each Party's respective obligations elsewhere in the Agreement, each Party, as applicable, agrees that where a Party determines the purpose and means of processing personal information, such Party is: (a) acting as a "controller" (as defined under applicable law) of such information; and (b) shall comply with all applicable data privacy and protection laws applicable to a controller, which shall include employing and maintaining appropriate Security (as defined below) to protect such information. "Security" means technological, physical and administrative controls, including, but not limited to, policies, procedures, organizational structures, hardware and software functions, as well as physical security measures, the purpose of which is, in whole or part, to ensure the confidentiality, integrity or availability of personal information. The Parties further agree to cooperate with each other to execute any necessary international data transfer agreements, including the execution of (i) EU Standard Contractual Clauses and (ii) any other data transfer agreements required under China law or other Applicable Law, in each case, as necessary to effectuate the compliant transfer of personal information between countries. Without limiting the foregoing, where either Party is acting as "processor" (as defined under applicable law) of the other Party, such Party shall comply with the terms of the Privacy and Data Protection Schedule attached hereto.

Section 12.6 Information Security. The Parties agree to comply with the Information Security Schedule attached hereto (the "Information Security Schedule") and the following:

(i) a mechanism to determine and promptly report suspected Security Breaches in accordance with the Information Security Schedule;

(ii) controls to ensure the return or destruction, at the other Party's direction, of Data as required under this Agreement;

(iii) a process for maintaining the confidentiality, integrity, security and availability of Data; and

(iv) methods for controlling access to Data, which shall include (a) permitted access methods; (b) an authorization process for users' access and privileges; and (c) maintenance of a list of authorized users, in accordance with the Data.

Section 12.7 Disclaimer of Warranties. EXCEPT AS SET FORTH IN THIS ARTICLE XII (REPRESENTATIONS AND WARRANTIES), BEIGENE AND AMGEN EXPRESSLY DISCLAIM ANY AND ALL REPRESENTATIONS AND WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE COLLABORATION, PRODUCT INTELLECTUAL PROPERTY, AMGEN HOUSEMARKS, BEIGENE HOUSEMARKS, PRODUCT TRADEMARKS, THIS AGREEMENT, OR ANY OTHER SUBJECT MATTER RELATING TO THIS AGREEMENT, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OR

NONINFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS.

Section 12.8 Limitation of Liability. NOTWITHSTANDING ANY OTHER PROVISION CONTAINED HEREIN, OTHER THAN TO THE EXTENT RESULTING FROM EITHER PARTY'S BREACH OF ARTICLE IX (DISTRACTING PRODUCTS) OR ARTICLE XI (CONFIDENTIALITY, PUBLICATIONS AND PRESS RELEASES) OR EITHER PARTY'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, IN NO EVENT WILL BEIGENE OR AMGEN BE LIABLE TO THE OTHER PARTY OR ANY OF ITS AFFILIATES FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES (INCLUDING LOST PROFITS, BUSINESS OR GOODWILL) SUFFERED OR INCURRED BY SUCH OTHER PARTY OR ITS AFFILIATES IN CONNECTION WITH A BREACH OR ALLEGED BREACH OF THIS AGREEMENT. THE FOREGOING SENTENCE WILL NOT LIMIT THE OBLIGATIONS OF EITHER PARTY TO INDEMNIFY THE OTHER PARTY FROM AND AGAINST SUCH DAMAGES AS ARE AWARDED TO A THIRD PARTY WITH RESPECT TO THIRD PARTY CLAIMS UNDER SECTION 13.1 (INDEMNITY BY BEIGENE) OR SECTION 13.2 (INDEMNITY BY AMGEN).

ARTICLE XIII.

INDEMNIFICATION AND INSURANCE

Section 13.1 Indemnity by BeiGene. BeiGene will defend, indemnify, and hold harmless Amgen, its Affiliates, and their respective directors, officers, employees, agents and representatives (collectively, "Amgen Indemnitees"), at BeiGene's cost and expense, from and against any and all liabilities, losses, costs, damages, fees or expenses (including reasonable legal expenses and attorneys' fees) (collectively, "Losses") arising out of any Third Party Claims brought against any Amgen Indemnitee to the extent such Losses result from: (i) the negligence or willful misconduct of BeiGene or its Affiliates (or any employees, agents or representatives of any of them) in performing under this Agreement; (ii) a breach by BeiGene of Applicable Law or this Agreement, including the failure of BeiGene's representations or warranties in Article XII (Representations and Warranties) to be true in any material respect; or (iii) any product liability claims to the extent arising from the failure by BeiGene, its Affiliates or contractors in connection with the mishandling or improper storage of Products. The indemnification obligations under this Section 13.1 (Indemnity by BeiGene) exclude Losses to the extent they arise from (i), (ii) or (iii) below in Section 13.2 (Indemnity by Amgen) or are subject to a right of indemnification under the Supply Agreement.

Section 13.2 Indemnity by Amgen. Amgen will defend, indemnify, and hold harmless BeiGene, its Affiliates, and their respective directors, officers, employees, agents and representatives (collectively, "BeiGene Indemnitees"), at Amgen's cost and expense, from and against any and all Losses arising out of any Third Party Claims brought against any BeiGene Indemnitee to the extent such Losses result from: (i) the negligence or willful misconduct of Amgen or its Affiliates (or any employees, agents or representatives of any of them) in performing under this Agreement; (ii) a breach by Amgen of Applicable Laws or this Agreement, including the failure of Amgen's representations or warranties in Article XII (Representations and Warranties) to be true in any material respect; (iii) any product liability claims to the extent arising from the failure of a Product to conform with the Product specifications at the time of delivery by Amgen, its Affiliates or contract manufacturers. The indemnification obligations under this Section 13.2 (Indemnity by Amgen) exclude Losses to the extent they arise from (i), (ii) or (iii) above in Section 13.1 (Indemnity by BeiGene) or are subject to a right of indemnification under the Supply Agreement.

Section 13.3 Claim for Indemnification. Whenever any Third Party Claim or Loss arises for which a BeiGene Indemnitee or an Amgen Indemnitee (the "Indemnified Party") may seek indemnification under this Article XIII (Indemnification and Insurance), the Indemnified Party will promptly notify the other Party (the "Indemnifying Party") of the Third Party Claim or Loss; *provided* that the failure by an Indemnified Party to give such notice will not relieve the Indemnifying Party of its indemnification obligation under this Agreement except and only to the extent that the Indemnifying Party is actually prejudiced as a result of such failure. The Indemnifying Party will have exclusive control of the defense and settlement of all Third Party Claims for which it is responsible for indemnification and will assume defense thereof at its own expense promptly upon notice of such Third Party Claim. In no event will the Indemnifying Party settle such Third Party Claim without the prior written consent of the Indemnified Party, unless such settlement: (i) includes a complete release of the Indemnified Party from liability with respect to the Third Party Claim (including any cost sharing under this Agreement); and (ii) does not include any admission of wrongdoing by the Indemnified Party or a stipulation that any intellectual property or proprietary right of the Indemnified Party is invalid or unenforceable; *provided* that in the event consent is required by the Indemnifying Party for a settlement such consent shall not unreasonably withheld, conditioned or delayed. In the event of a disagreement regarding such settlement, such matter shall be escalated to the JSC. Notwithstanding the foregoing, the Indemnifying Party shall not be prohibited from entering into a settlement that involves one or more countries in addition to Collaboration Territory so long as such settlement does not result in any liability or admission of

wrongdoing by the Indemnified Party or a stipulation that any intellectual property or proprietary right of the Indemnified Party is invalid or unenforceable. The Indemnified Party will have the right to employ separate counsel at the Indemnifying Party's expense and to control its own defense of the applicable Third Party Claim if: (i) there are or may be legal defenses available to the Indemnified Party that are different from or additional to those available to the Indemnifying Party; or (ii) in the reasonable opinion of counsel to the Indemnified Party, a conflict or potential conflict exists between the Indemnified Party and Indemnifying Party that would make such separate representation advisable. For the avoidance of doubt, any Third Party Claims or Losses, to the extent indemnifiable pursuant to this Section 13.3, shall be excluded from the definition of "Commercialization and Related Costs."

Section 13.4 Defense of Third Party Claims.

13.4.1 All Third Party Claims except Infringement and Invalidity Claims. Except as otherwise provided in Section 13.3 (Claim for Indemnification) and excluding Infringement or Invalidity Claims, each Party (such Party referred to as the "Defending Party") will have the sole right, but not the obligation, to defend against any Third Party Claims made against it with respect to its activities hereunder. Each Party will notify the other Party (the "Assisting Party") as promptly as practicable if any such Third Party Claim is commenced or threatened against it. The Assisting Party will reasonably assist the Defending Party and cooperate in any such litigation at Defending Party's reasonable request. Without limiting the foregoing, the Defending Party will keep the Assisting Party advised of all material communications and actual and prospective filings or submissions regarding such action, and will provide the Assisting Party copies of and an opportunity to review and comment on any such communications, filings and submissions; *provided* that each Party will have the right to redact from any information disclosed to the other hereunder any information relating to a product other than a Product or relating to a device used in connection with, or the manufacture of, a Product. The Defending Party will control the defense and settlement of Third Party Claims, with the documented out-of-pocket costs thereof being included in Commercialization and Related Costs, to the extent provided in the definition of "Commercialization and Related Costs." The Defending Party will not settle such Third Party Claim without the prior written consent of the other Party, unless such settlement: (i) includes a complete release of the Assisting Party from liability with respect to the Third Party Claim (including any cost sharing under this Agreement); and (ii) does not include any admission of wrongdoing by the Assisting Party; *provided* that in the event consent is required by the other Party for a settlement such consent shall not be unreasonably withheld, conditioned or delayed. In the event of a disagreement regarding such settlement, such matter shall be escalated to the JSC. In the event that a Third Party Claim is brought against both of the Parties (a "Joint Claim"), then the Parties will determine whether to defend against such Joint Claim, which of the Parties should be the Defending Party or whether the Parties should jointly control such defense and the strategy for such defense. This Section 13.4 (Defense of Third Party Claims) will not apply to employment or similar personnel-related claims.

13.4.2 Infringement or Invalidity Claims. Amgen will have the right to defend against any Infringement or Invalidity Claims brought against either Party or their respective Affiliates in the Collaboration Territory. Each Party will notify the other Party as promptly as practicable if any Infringement or Invalidity Claim is commenced or threatened against it. BeiGene will reasonably assist Amgen and cooperate in any such litigation at Amgen's reasonable request. Without limiting the foregoing, Amgen will keep BeiGene advised of all material communications and actual and prospective filings or submissions regarding such action in the Collaboration Territory, and will provide BeiGene copies of and an opportunity to review and comment on any such communications, filings and submissions in the Collaboration Territory and will in good faith consider any comments made by, and actions recommended by, BeiGene; *provided* that BeiGene provides its comments consistent with any applicable filing deadlines; *provided further* that each Party will have the right to delete from any information disclosed to the other hereunder any information relating to a product other than a Product or relating to a device used in connection with, or the manufacture of, a Product. Subject to this Section 13.4.2, Amgen will control the defense and settlement of Infringement or Invalidity Claims. The documented out-of-pocket costs of defending and settling Infringement or Invalidity Claims shall be included in Commercialization and Related Costs, to the extent provided in the definition of "Commercialization and Related Costs." Amgen will not settle such Infringement or Invalidity Claim in the Collaboration Territory without the prior written consent of BeiGene unless such settlement: (i) includes a complete release of BeiGene from liability with respect to the Infringement or Invalidity Claim (including any cost sharing under this Agreement); and (ii) does not include any admission of wrongdoing by BeiGene; *provided* that in the event consent is required by BeiGene for a settlement such consent shall not unreasonably withheld, conditioned or delayed. In the event of a disagreement regarding such settlement, such matter shall be escalated to the JSC. Notwithstanding the foregoing, Amgen shall not need BeiGene's prior written consent to enter into a settlement agreement that (i) resolves an Infringement or Invalidity Claim in one or more countries in addition to the Collaboration Territory or (ii) resolves an Infringement or Invalidity Claim in one or more countries outside the Collaboration Territory so long as, in the case of either (i) or (ii), such settlement does not result in any admission of wrongdoing by BeiGene. If the Parties cannot agree on the costs of defending and settling Infringement or Invalidity Claims in the event of such settlement without the consent of BeiGene, the Parties shall resolve such dispute in accordance with Section 15.4 (Governing Law; Dispute Resolution). Notwithstanding the foregoing any Infringement or Invalidity Claims relating to a nullification, declaratory judgment, opposition or revocation proceeding against any Product Intellectual Property will be subject to

the provisions of Section 10.8 (Defense and Settlement of Third Party Claims of Infringement and Other Proceedings). The coordination and cooperation set forth in this Section 13.4.2 will be accomplished via the Patent Coordinators. Amgen shall be responsible for [*] of all amounts payable to a Third Party under an Infringement or Invalidity Claim in the Collaboration Territory, and BeiGene shall be responsible for [*] of all amounts payable to a Third Party under an Infringement or Invalidity Claim in the Collaboration Territory. Notwithstanding the foregoing, each Party acknowledges and agrees that this Section 13.4.2 is the exclusive remedy for Infringement or Invalidity Claims and, therefore, any Losses arising out of any Infringement or Invalidity Claims subject to this Section 13.4.2 shall be disregarded for the purpose of indemnification under Section 13.1 (Indemnity by BeiGene) and Section 13.2 (Indemnity by Amgen).

Section 13.5 Insurance. Each of the Parties will, at their own respective expense (and not subject to cost sharing hereunder) procure and maintain during the Term, insurance policies adequate to cover their obligations hereunder and consistent with the normal business practices of prudent pharmaceutical companies of similar size and scope (or reasonable self-insurance sufficient to provide materially the same level and type of protection). Such insurance will not create a limit to either Party's liability hereunder.

Section 13.6 Guarantee. In connection with this Agreement, BeiGene Parent and BeiGene have entered into that certain Guarantee Agreement, dated as of the date hereof, and attached hereto as a schedule to this Agreement (the "Guarantee Agreement"), under which BeiGene Parent unconditionally guarantees the payment and performance of any and all obligations of BeiGene, and agrees to be jointly and severally liable with BeiGene, for the performance of any and all of BeiGene's obligations hereunder and under the terms and conditions of any applicable Transition Services Agreement and any applicable Reverse Transition Services Agreement.

ARTICLE XIV.

TERM AND TERMINATION; REVERSION OF PRODUCTS; CAPABILITY BUILD

Section 14.1 Term. Except for the terms and conditions of Article XI and Article XII, which shall become effective on the Execution Date, this Agreement shall become effective on the later of (i) the date on which the applicable waiting period under the HSR Act with respect to the transactions contemplated by the Share Purchase Agreement expires or is terminated, (ii) the date on which BeiGene issues all of the equity contemplated under the Share Purchase Agreement to Amgen or its designated Affiliate after having obtained all necessary consents and approvals (including shareholder approval in accordance with the rules of the Hong Kong Stock Exchange) and (iii) January 1, 2020 (the "Effective Date"). This Agreement will become effective on the Effective Date and will continue until the expiration of the Term for all Products, unless terminated earlier in accordance with this Article XIV.

Section 14.2 Mutual Termination Rights for the Agreement. Either Party may terminate this Agreement in its entirety upon written notice to the other Party:

14.2.1 Material Breach. If the other Party is in material breach of this Agreement, then the non-breaching Party may terminate this Agreement in its entirety by providing written notice to the breaching Party of such material breach (specifying the nature of the breach in reasonable detail) and termination; *provided* that except as otherwise provided in Section 14.2.3, (i) to the extent that such material breach is with respect to the failure of a Party to comply with its diligence obligations under this Agreement (including in Sections 2.1, 3.1.2, 3.2.1, 5.1.2, 5.1.3 and 6.2) with respect to one or more Products, the non-breaching Party shall only have the right to terminate this Agreement with respect to such Product or Products under Section 14.3 (Mutual Termination Rights for a Product), and (ii) subject to the foregoing, the breaching Party (or its Affiliate) shall have an opportunity to cure (if such breach is capable of cure or remedy and provided that a similar breach has not previously occurred two or more times in the prior [*] period) such material breach within[*] after the receipt of such notice. During any such [*] cure period, either Party may require that the Designated Officers meet and confer in good faith to resolve such breach condition. So long as the breaching Party is demonstrating Commercially Reasonable Efforts to cure such material breach, the breaching Party (or its Affiliate) shall have an additional [*] to cure such material breach.

14.2.2 Insolvency. If the other Party, or an Affiliate which controls such Party (as the term "control" is defined in Section 1.3 ("Affiliate")), suffers an Insolvency Event, then the non-affected Party may terminate this Agreement in its entirety upon written notice to the other Party.

14.2.3 Breach of Proper Conduct Practices. If either Party reasonably determines that the other Party (including through any Representative or Third Party engaged by the other Party) has failed to comply with the Proper Conduct Practices, such Party shall promptly notify the other Party in writing, and, such Party shall take such actions as are reasonably necessary or as reasonably

requested by the other Party in order to mitigate the effects of such failure to comply, and to avoid the continuation or reoccurrence of such failure or similar failures to comply with such Proper Conduct Practices. If the other Party is negligent in undertaking such remedial or mitigating actions, the notifying Party may terminate this Agreement in its entirety by providing written notice to the other Party.

14.2.4 Change in Legal or Political Landscape. If any event, occurrence, fact, condition or change in the legal, regulatory or political landscape in the United States or the Collaboration Territory (each, a "Material External Change") occurs after the Effective Date that results in a reduction in the Parties' respective share of the economic return under this Agreement by more than [*] (an "Adverse Economic Impact"), then the affected Party may require that the Designated Officers meet and confer in good faith to consider amendments to this Agreement to address the Adverse Economic Impact in order to achieve the same economics on a pro rata basis as originally contemplated by the Parties hereunder. If the Designated Officers are unable to mutually agree on such actions within [*] after the Designated Officers first meet to consider such matter, then the affected Party may designate the matter for mediation and arbitration pursuant to Section 15.4.3 below, *provided, however*, if the Adverse Economic Impact cannot reasonably be solved through amendment to the Agreement and such Adverse Economic Impact continues for no less than [*], then the affected Party may terminate this Agreement at the end of such[*] period upon written notice to the other Party; *provided* that [*] Notwithstanding the foregoing, if the Parties cannot reach agreement with respect to the foregoing [*], either Party may request such Dispute be arbitrated in accordance with Section 15.4.4.

Section 14.3 Mutual Termination Rights for a Product. Either Party may terminate the Agreement on a Product-by-Product basis upon written notice to the other Party if the other Party is in material breach of this Agreement with respect to one or more Products (but less than all Products included in this Agreement), then the non-breaching Party may terminate this Agreement with respect to such one or more such Products by providing written notice to the breaching Party of such material breach (specifying the nature of the breach in reasonable detail) and termination; *provided* that the breaching Party (or its Affiliate) shall have an opportunity to cure (if such breach is capable of cure or remedy and provided that a similar breach has not previously occurred two or more times in the prior [*] period) such material breach within[*] after the receipt of such notice. During any such [*] cure period, either Party may require that the Designated Officers meet and confer in good faith to resolve such breach condition. So long as the breaching Party is demonstrating Commercially Reasonable Efforts to cure such material breach, the breaching Party (or its Affiliate) shall have an additional [*] to cure such material breach.

Section 14.4 Mutual Termination Rights for Commercial Viability in the Collaboration Territory . In the event either Party has a good faith concern that (i) the launch or continued Commercialization of the Product in the Collaboration Territory is not likely to be commercially viable for the Parties with Commercially Reasonable Efforts, based upon credible evidence, such as any decision by a Regulatory Authority to require significant additional information before or on condition of granting Regulatory Approval, or (ii) the Commercialization of the Product in the Collaboration Territory is not reasonably expected to be commercially viable over the expected or remaining lifecycle of the Product, based upon credible evidence, such as any decision by a Regulatory Authority in the Collaboration Territory regarding Product labeling or reimbursement, or [*], such Party may raise such concern for discussion by the JSC. If after discussion with the JSC and escalation to the Designated Officers the Parties disagree on whether to launch or commercialize the Product in the Collaboration Territory, then the Party that desires to not launch or commercialize the Product shall have the right to terminate this Agreement with respect to such Product upon at least [*] prior written notice to the other Party, *provided* that if Amgen is the terminating Party, BeiGene shall have the option to continue development and/or commercialization of such Product in the Collaboration Territory pursuant to Section 14.5 (Termination Rights for Suspension of a Pipeline Product).

Section 14.5 Termination Rights for Suspension of a Pipeline Product. Amgen may terminate this Agreement in its sole discretion with respect to a Suspended Product which remains a Suspended Product for at least [*], *provided* that:

14.5.1 BeiGene can request agreement from Amgen to [*]; or

14.5.2 If Amgen does not agree to [*] subject to [*].

14.5.3 For clarity, a Suspended Product for which BeiGene exercised its right and the Parties have reached an agreement pursuant to Section 14.5.1 or 14.5.2 shall nonetheless be deemed a Product that is terminated from this Agreement in the ROW (and thus no longer subject to the Distracting Program Restriction in the ROW), but shall continue to be a Product under this Agreement in the Collaboration Territory (and thus remains subject to the Distracting Program Restriction in the Collaboration Territory).

Section 14.6 General Effects of Product Reversion, Expiration or Termination. Product Reversion or expiration or termination of this Agreement (whether as a whole or with respect to a particular Product) for any reason shall have the following effects with regard to the relevant Product(s):

14.6.1 any liabilities or obligations previously accrued with respect to the applicable Product(s) shall survive with respect to the applicable Product(s);

14.6.2 BeiGene shall transfer to Amgen and assign all right title and interest in any and all assets and intellectual property owned or Controlled by BeiGene which are exclusively related to the applicable Product(s);

14.6.3 BeiGene shall return to Amgen or destroy (and certify such destruction to Amgen) all Amgen Confidential Information and Amgen shall return to BeiGene or destroy (and certify such destruction to BeiGene) all BeiGene Confidential Information related to the applicable Product(s);

14.6.4 BeiGene shall, to the extent permitted by Applicable Law and as requested by Amgen, assign any Third Party contracts exclusively related to the applicable Products(s) in the Collaboration Territory to Amgen or its designee (including by requesting and using good faith efforts to obtain any required consents);

14.6.5 BeiGene and Amgen shall continue to share in Collaboration Profits and continue to pay Global Development Costs-Share Payments related to the applicable Product(s) incurred prior to the effective date of such expiration or termination;

14.6.6 the Parties shall transition responsibility for Commercialization of the applicable Product(s) to Amgen in accordance with Section 14.9 (Transition Obligations);

14.6.7 except in the event of termination by Amgen pursuant to Section 14.2.1 (Termination for Breach) or Product Reversion, BeiGene shall have a reasonable period (not to exceed [*]) to sell off the inventory of the applicable Product(s);

14.6.8 Amgen shall have the right to reacquire some or all of the inventory of the applicable Product(s), as requested by Amgen, in possession of BeiGene and its Affiliates at [*] of the Manufacturing Actual Cost for such inventory;

14.6.9 all rights granted by BeiGene to its Affiliates or sublicensees (other than those included in a third party contract to be assigned to Amgen pursuant to Section 14.6.4) hereunder shall terminate;

14.6.10 BeiGene shall execute any assignments requested by Amgen to perfect its right, title and interest in all Promotional Materials, training materials, Regulatory Filings and Regulatory Approvals and Product Trademarks for such Product(s) to Amgen and shall take such actions reasonably necessary to ensure such Regulatory Filings and Regulatory Approvals for such Product(s) are in Amgen's name;

14.6.11 as of the effective date of such termination, BeiGene hereby assigns all of its joint right, title and interest in and to the Joint Development Data related to the applicable Product(s) to Amgen;

14.6.12 the license grant from BeiGene to Amgen pursuant to Section 10.6 (License Grant by BeiGene) shall survive and the license grants from Amgen to BeiGene pursuant to Section 3.1.5 (Ownership of Development and Safety Data) and Section 10.5 (License Grant by Amgen) shall terminate;

14.6.13 Amgen shall have the right to control all recalls of the applicable Product(s) in the Collaboration Territory, and BeiGene shall provide any reasonable assistance requested by Amgen in connection therewith; and

14.6.14 BeiGene shall transition or complete (as set forth in the applicable Reverse Transition Services Agreement) at Amgen's cost any ongoing Clinical Studies which it or its Affiliates is conducting in the Collaboration Territory.

14.6.15 Any termination or expiration of this Agreement shall be without prejudice to any other right or remedy to which a Party may be entitled. Upon the expiration of this Agreement or the termination of this Agreement (whether as a whole or with respect to a particular Product), all Regulatory Filings, Regulatory Approvals and other proprietary information relating to the applicable Product(s) shall remain Amgen Confidential Information.

14.6.16 If any approval, consent or waiver with respect to any right, contract or asset that is to be assigned pursuant to Section 14.6 or the applicable Reverse Transition Services Agreement shall not have been obtained prior to Product Reversion, termination or expiration, BeiGene shall, and shall cause its Affiliates to, use their respective commercially reasonable efforts to obtain all necessary approvals, consents and waivers to the assignment and transfer thereof. Without limiting the foregoing, until such assignment and transfer is completed or otherwise with respect to any asset or contract which is used or related to but not exclusively used or related to the Product which is subject to the Product Reversion or termination and thus not being assigned and

transferred, BeiGene shall, and shall cause its Affiliates to, use their respective commercially reasonable efforts to provide to Amgen substantially comparable benefits thereof and enforce, at the request of and for the account of Amgen, any rights of BeiGene or its Affiliates arising under such rights, contracts or assets.

Section 14.7 Product Reinstatement.

14.7.1 If this Agreement is terminated by Amgen with respect to a Product in accordance with Section 14.4 (Mutual Termination Rights for Commercial Viability in the Collaboration Territory) or Section 14.5 (Termination Rights for Suspension of a Pipeline Product) and after such termination with respect such Product, Amgen initiates clinical Development or Commercialization of such Product, then Amgen shall provide written notice to BeiGene within [*] of such event, which notice shall include a data package containing relevant information Controlled by Amgen applicable to the pre-clinical and clinical Development of such terminated Product and its business case for reinstating the Product. Within [*] after receiving the aforementioned notice, BeiGene shall notify Amgen as to whether it desires such terminated Product to be reinstated as a Product under this Agreement (such notification date, the Product Reinstatement Notice Date).

14.7.2 If BeiGene does not timely provide notice that it desires such terminated Product to be reinstated as a Product, the terminated Product shall remain a terminated Product and Amgen shall have no further obligations under this Agreement with respect to such Product.

14.7.3 If BeiGene does timely provide notice that it desires such terminated Product to be reinstated as a Product and is not conducting or participating in, or advising, assisting or enabling any Third Party to conduct or participate in, any Distracting Program corresponding to such reinstated Product, the terminated Product shall be reinstated as a Product under this Agreement provided that if BeiGene does timely provide notice that it desires such terminated Product to be reinstated as a Product but is conducting or participating in, or advising, assisting or enabling any Third Party to conduct or participate in, any Distracting Program corresponding to such reinstated Product (which for purposes of this subsection shall also be deemed to be a Distracting Transaction whether or not internally developed by BeiGene) then BeiGene shall Divest or terminate all activities with respect to such Distracting Program in accordance with Section 9.3.1 or 9.3.2 (provided that all references to closing of the Distracting Transaction shall instead be deemed to refer to the Product Reinstatement Notice Date). Thereafter, such Product shall be reinstated as of the date of such termination or Divestment as a Product per above.

14.7.4 For clarity, a Product for which BeiGene elects to continue a Distracting Product shall remain a terminated Product (and thus no longer subject to the Distracting Program Restriction). Reciprocally, a Product for which BeiGene elects to have reinstated shall once again be deemed a Product under this Agreement (and thus once again become subject to the Distracting Program Restriction).

Section 14.8 Additional Surviving Provisions. In addition and without prejudice to the provisions of Section 14.6 (General Effects of Expiration or Termination), in the event of any expiration or termination of this Agreement (whether as a whole or with respect to a particular Product) the following provisions shall survive: Article I (Definitions), VII (Financial Consideration) (with respect to amounts incurred or earned prior to any such expiration or termination), VIII (Payments) (with respect to amounts incurred or earned prior to any such expiration or termination), XI (Confidentiality, Publications and Press Releases), XIII (Indemnification and Insurance), XIV (Term and Termination) and XV (Miscellaneous) and Sections 2.9.2 (Non-Collaboration Territory Agreements), 3.1.5 (Ownership of Development and Safety Data) (subject to Section 14.6.2), 5.7.2 (Records; Audit Right) (with respect to amounts incurred or earned prior to any such expiration or termination), 10.1 (Program Intellectual Property Ownership), 10.2 (Copyright Ownership), 10.3 (Product Trademarks), 10.4 (Joint Ownership), 10.6 (License Grant by BeiGene), Section 12.5 (Privacy and Data Protection), 12.7 (Disclaimer of Warranties) and 12.8 (Limitation of Liability).

Section 14.9 Transition Obligations.

14.9.1 During the Term, BeiGene shall use commercially reasonable efforts to conduct the Designated BeiGene Activities in a manner that will not reasonably be expected to prevent or materially delay or increase the transitional cost of a Product Reversion under this Agreement. In addition, BeiGene shall use commercially reasonable efforts to ensure that any Third Party contracts related to the applicable Product(s) in the Collaboration Territory are assignable to Amgen without the consent of such Third Party.

14.9.2 During the [*] period following termination of this Agreement, the Parties shall cooperate to transition all of BeiGene's activities with respect to the applicable Product in the Collaboration Territory from BeiGene to Amgen. BeiGene shall take all actions reasonably requested by Amgen to facilitate such transition, and the Parties shall conduct such transition expeditiously and as reasonably necessary to minimize disruption in the development and commercialization of a Product in the

Collaboration Territory. Amgen shall be solely responsible for all costs and expenses incurred in connection with any Product Reversion pursuant to this Section 14.9.2, *provided* that in the event of any termination by Amgen under Section 14.2.1 (Termination for Breach), Section 14.2.3 (Breach of Proper Conduct Practices) or Section 14.3 (Mutual Termination Rights for a Product), BeiGene shall be solely responsible for all costs and expenses incurred in connection with any such Product Reversion.

14.9.3 During a reasonable period (not less than [*]) before the reversion of Product rights to Amgen pursuant to Section 5.1.2(a) and Section 5.1.3, as applicable (each, a "Product Reversion") and for a reasonable period thereafter, the Parties shall cooperate to transition all of BeiGene's activities with respect to the applicable Product in the Collaboration Territory from BeiGene to Amgen in accordance with the applicable Reverse Transition Services Agreement (as may be amended by the Parties as necessary to ensure an orderly transition of the applicable Product). BeiGene shall take all actions reasonably requested by Amgen to facilitate such transition, and the Parties shall conduct such transition expeditiously and as reasonably necessary to minimize disruption in the commercialization of a Product, as well as employees and operations in the Collaboration Territory, in each case in accordance with the terms and provisions of the applicable Reverse Transition Services Agreement. During the transition period, each Party will conduct its business related to the Product Reversion in the ordinary course, consistent with past practice. Without limiting the foregoing, during the period specified in the first sentence, if either BeiGene or Amgen becomes aware that any of the rights, contracts or assets which were to have been assigned or transferred to Amgen pursuant to Section 14.6 have not been so transferred to Amgen, it shall promptly notify the other Party in writing and the Parties shall, as soon as reasonably practicable, ensure that such property is transferred, with any necessary prior Third Party consent or approval, to Amgen. Furthermore, if, after the Product Reversion date, either Party shall receive any payments or other funds due to the other pursuant to the terms of this Agreement or any Reverse Transition Services Agreement, then the Party receiving such funds shall, within [*] after receipt of such funds, forward such funds to the proper Party.

Section 14.10 Ordinary Course of Business. During the Product Reversion Transition Period with respect to the applicable Product(s), except (i) as otherwise expressly required by this Agreement or any Reverse Transition Services Agreement, (ii) as required by Applicable Law, (iii) as Amgen shall otherwise consent to in writing, which consent shall not be unreasonably withheld, BeiGene shall and shall cause its Affiliates to:

14.10.1 conduct its Development and Commercialization activities with respect to the applicable Product(s) in the ordinary course of business;

14.10.2 use commercially reasonable efforts to preserve the applicable Product(s) business and its goodwill and maintain its relations and goodwill with customers and other Persons having material business relationships with respect to the applicable Product(s);

14.10.3 not encumber, transfer or assign the assets (other than inventory in the ordinary course) which are to be transferred to Amgen pursuant to Section 14.6 or any Reverse Transition Services Agreement;

14.10.4 not (i) transfer, assign, materially modify, materially amend or terminate any contract or waive, release, assign or fail to exercise or pursue any material rights or claims under any contract which is to be assigned to Amgen pursuant to Section 14.6 or any Reverse Transition Services Agreement, (ii) terminate or materially amend any contract with any Governmental Authority relating to the applicable Product(s) in the Collaboration Territory or (iii) enter into any material contract relating to the applicable Product(s) in the Collaboration Territory, other than contracts that (a) are renewals of existing agreements, (b) do not materially and adversely affect the value of the applicable Product(s), or (c) are with respect to the sale of inventory, in each case in the ordinary course of business;

14.10.5 other than in the ordinary course of the applicable Product(s) business, not (i) accelerate the delivery or sale of any units of the applicable Product(s) in the Collaboration Territory, or (ii) modify the price or offer discounts on the sale of units of the applicable Product(s) in the Collaboration Territory;

14.10.6 not take any action that would reasonably be expected to have a material adverse impact on the Regulatory Approvals for the applicable Product(s);

14.10.7 other than in the ordinary course of business, not materially alter its activities and practices with respect to inventory levels (including samples) of the applicable Product(s) maintained at the wholesale distribution, sub-distribution or institutional levels in the Collaboration Territory;

14.10.8 other than in the ordinary course of business, not terminate or alter the duties of any Person performing sales activities with respect to the applicable Product(s) in a manner that would have a material adverse impact on sales of the applicable

Product(s); and

14.10.9 not agree, commit or offer (in writing or otherwise) to take any of the actions described above.

Section 14.11 Capability Build Services. In connection with Amgen's effort to build internal capability within its Affiliates in the Collaboration Territory, beginning [*] prior to the end of the In-Line Product Commercialization Period with respect to the applicable In-Line Products and Pipeline Products, BeiGene covenants and agrees to use commercially reasonable efforts to undertake the actions set forth on the Capability Build Services Schedule.

ARTICLE XV.

MISCELLANEOUS

Section 15.1 Assignment; Change of Control.

(a) Neither this Agreement nor any rights or obligations hereunder may be assigned or otherwise transferred (whether by operation of Applicable Law, general succession or otherwise) by either Party without the prior written consent of the other Party; *provided* that (i) either Party may assign this Agreement, and its rights and obligations hereunder, to an Affiliate only with the prior written consent of the other Party (not to be unreasonably withheld, conditioned or delayed), (ii) Amgen may assign this Agreement and its rights and obligations hereunder (x) in its entirety in connection with the transfer or sale of all or substantially all of the Product(s) to which this Agreement relates or (y) in part on a Product-by-Product basis subject to Section 15.1(b), and (iii) either Party may assign this Agreement, and its rights and obligations hereunder in connection with a Change of Control, which Change of Control, with respect to BeiGene, shall be subject to Section 15.1(c). Any assignment not in accordance with this Agreement will be null and void ab initio. Subject to the foregoing, the rights and obligations of the Parties under this Agreement will be binding upon and inure to the benefit of the successors and permitted assigns of the Parties. Additionally, if this Agreement is assigned, in whole or in part, in accordance with its terms, then: (1) any Safety Agreement or Quality Agreement may be assigned, in whole or in part, by the assignor to the permitted assignee of this Agreement; and (2) the assignor's ongoing and future obligations to the other Party under the Safety Agreement or Quality Agreement will be deemed terminated to the extent commensurate with the assignment of the corresponding obligations under this Agreement.

(b) If Amgen assigns this Agreement in part with respect to a Product only, Amgen shall provide BeiGene with prompt written notice of such assignment. Such notice shall be provided by Amgen prior to the execution of such assignment, if permitted under Applicable Laws and not prohibited by the terms of any agreement between Amgen and any Third Party, and otherwise as soon as practicable thereafter and, in any event, not later than [*] following the consummation of the transaction contemplated by such agreement. BeiGene shall have the right, in its sole discretion, by providing written notice within [*] of its receipt of such notice to terminate its right and obligation to Develop and Commercialize the Product and upon receipt of such notice such Product shall be deemed terminated from this Agreement, *provided* that [*]. If BeiGene should fail to give such notice to Amgen within such [*] period, BeiGene shall have no further rights to take the actions set forth in this Section 15.1(b) as a result of such assignment described in the foregoing notice. If the Parties cannot reach agreement with respect to such royalty, either Party shall have the right to refer such dispute to arbitration under Section 15.4.4.

(c) If BeiGene enters into an agreement that results or that, if the transaction contemplated thereby is completed would result, in a Change of Control of BeiGene, BeiGene shall provide Amgen with prompt written notice describing such Change of Control in reasonable detail (the "BeiGene Change of Control Notice"). The BeiGene Change of Control Notice shall be provided by BeiGene prior to the execution of such agreement, if permitted under Applicable Laws and not prohibited by the terms of any agreement between BeiGene and any Third Party, and otherwise as soon as practicable thereafter and, in any event, not later than [*] following the consummation of the transaction contemplated by such agreement. Amgen shall have the right, in its sole discretion, by providing written notice within [*] of its receipt of the BeiGene Change of Control Notice to elect one or more of the following:

(i) terminate BeiGene's right to Develop and Commercialize the Products, *provided* that [*];

(ii) terminate BeiGene's right to participate in any committees established pursuant to Article 2 which committees shall, if Amgen elects, be disbanded and all decisions that were the responsibility of such committees shall thereafter be made by Amgen; and/or

(iii) no longer provide BeiGene with certain information and reports, including copies of Key Regulatory Filings

and Material Communications pursuant to Section 3.2.3, data and Know-How pursuant to Section 3.3.

If Amgen should fail to give such notice to BeiGene within such period [*] period, Amgen shall have no further rights to take the actions set forth this Section 15.1(c)as a result of the Change of Control described in the BeiGene Change of Control Notice. If the Parties cannot reach agreement with respect to the royalty in Section 15.1(c)(i), either Party shall have the right to refer such dispute to arbitration under Section 15.4.4.

Section 15.2 Compliance with Laws. The Parties enter into this Agreement with the intent of conducting their relationship in full compliance with Applicable Law. Notwithstanding any unanticipated effect of any of the provisions herein, neither Party will intentionally conduct itself under the terms of this Agreement in a manner that does our would constitute a violation of Applicable Law. In the event that any Governmental Authority of competent jurisdiction determines that this Agreement or any material provision of this Agreement violates any Applicable Law, the Parties shall negotiate in good faith to amend this Agreement or the relevant provision thereof to remedy such violation in a manner that will not be inconsistent with the intent of the Parties or such provision. If the Parties are unable to so negotiate a modification within [*] of delivery of the notice regarding such violation, then either Party may elect to terminate this Agreement upon written notice to the other.

Section 15.3 Change in Applicable Law. If any change in Applicable Law enacted after the Execution Date could reasonably be expected to have a material adverse effect on the ability of either Party to carry out its obligations, or receive the benefits under, this Agreement, such Party, upon written notice to the other Party (which notice may be given within [*] following enactment of such change in Applicable Law, whether or not such change is effective on the date of such enactment or is effective at a later date), may request renegotiation of this Agreement. Such renegotiation will be undertaken in good faith.

Section 15.4 Governing Law; Dispute Resolution.

15.4.1 This Agreement and its effect are subject to and shall be construed and enforced in accordance with the laws of the State of New York, U.S.A., without regard to its conflicts of laws, except as to any issue which depends upon the validity, scope or enforceability of any Patent, which issue shall be determined in accordance with the laws of the country in which such patent was issued.

15.4.2 Subject to Sections 15.4.3 and 15.4.4 below, any dispute, controversy or claim arising under, out of or in connection with this Agreement, including any question regarding the existence, validity or termination of this Agreement (and including the applicability of this Section 15.4 to any such dispute, controversy or claim), but excluding any dispute, controversy or claim subject to Section 2.4.3 (JAC Deadlocks), Section 2.3.2 (JSC Deadlocks) or Section 7.8 (Commercialization Budget Deadlock) (each a "Dispute"), shall be referred to and finally settled under the Rules for Administered Arbitration of the International Institute for Conflict Prevention & Resolution in effect at the time of submitting for arbitration, which rules are deemed to be incorporated by reference in this clause:

(a) The arbitration tribunal (the "Tribunal") shall consist of three (3) arbitrators who are experienced in the biopharmaceutical industry. Each Party shall designate one arbitrator and the third arbitrator, who shall serve as chair of the Tribunal, shall be designated by the two party-appointed arbitrators in consultation with the Parties.

(b) The seat of arbitration shall be New York, New York, and the arbitration proceedings shall be held in English.

(c) The award of the Tribunal shall be final and judgment upon such an award may be entered in any competent court or application may be made to any competent court for juridical acceptance of such an award and order of enforcement.

(d) The costs of the Tribunal shall be paid by the non-prevailing Party.

(e) Neither Party or its Affiliates nor any arbitrator may disclose the existence, content, or results of any arbitration under this Agreement without the prior written consent of the applicable parties, unless and only to the extent such disclosure is necessary to confirm, vacate or enforce the award or is otherwise required by Applicable Law.

(i) The Tribunal shall not have the power to grant any award or remedy other than such awards or remedies that are available under the governing law set forth in Section 15.4.1.

Notwithstanding anything contained in this Section 15.4 a Party or its Affiliate may seek interim or provisional relief or measures in any applicable courts and tribunals that may be necessary to protect the rights of a Party or its Affiliate pending the establishment of the Tribunal or pending the Tribunal's determination of the merits of the controversy.

15.4.3 Any Dispute shall first be referred to the Alliance Managers for each of the Parties to facilitate and assist resolution of such Dispute, including scheduling an initial meeting between their respective Designated Officers for attempted resolution within [*] after such referral if such matter had not previously been reviewed by the Designated Officers under Section 2.3.2 (JSC Deadlocks). If such Dispute is not resolved within [*] after such referral to the Alliance Managers and, if applicable, the meeting between the Designated Officers, then either Amgen or BeiGene may commence arbitration under Section 15.4 (Governing Law; Dispute Resolution).

15.4.4 Baseball Arbitration.

(a) Any Dispute that the Designated Officers are unable to resolve pursuant to Section5.1.3(b), Section 14.2.4, Section 15.1(b), or Section 15.1(c)(i) shall be submitted to a Third Party expert (a "Third Party Expert") mutually acceptable to the Parties having relevant expertise with respect to the Dispute and who has not had any material business relationship with either Party in the [*] prior to appointment. The Parties shall use reasonable efforts to mutually agree on the Third Party Expert within [*] after either Party designates the Dispute for mediation and arbitration under Section 5.1.3(b), Section 14.2.4, Section 15.1(b), or Section 15.1(c)(i). The Third Party Expert shall initially attempt to resolve the Dispute through non-binding mediation. If the Third Party Expert is unable to resolve the Dispute through non-binding mediation within [*], the Dispute will be resolved through Section 15.4.4(b).

(b) Within [*] of completion of non-binding mediation, each Party will deliver to both the Third Party Expert and the other Party a detailed written proposal setting forth its proposed terms for the resolution of the Dispute (the "Proposed Terms") and a memorandum (the "Support Memorandum") in support thereof, not exceeding [*] in length. The Parties will also provide the Third Party Expert with a copy of this Agreement, as amended through such date. Within [*] after receipt of the other Party's Proposed Terms and Support Memorandum, each Party may submit to the Third Party Expert (with a copy to the other Party) a response to the other Party's Proposed Terms and Support Memorandum, such response not exceeding [*] in length. Neither Party may have any other communications (either written or oral) with the Third Party Expert; *provided* that the Third Party Expert may, in its discretion, convene a hearing to ask questions of the Parties and hear oral argument and discussion regarding each Party's Proposed Terms and Support Memorandum, at which time each Party shall have an agreed upon time to argue and present witnesses in support of its Proposed Terms.

(c) Within [*] after the Third Party Expert is appointed, the Third Party Expert shall select [*] Proposed Terms (without modification) provided by the Parties which most closely reflects a commercially reasonable interpretation of the terms of this Agreement. In making its selection, (i) the Third Party Expert shall not modify the terms or conditions of either Party's Proposed Terms nor shall the Third Party Expert combine provisions from both Proposed Terms and (ii) the Third Party Expert shall consider the terms and conditions of this Agreement, the relative merits of the Proposed Terms, the Support Memorandums and, if applicable, the oral arguments of the Parties. The Third Party Expert shall make its decision known to both Parties as promptly as possible by delivering written notice to both Parties. The decision of the Third Party Expert shall be final and binding on the Parties, and specific performance may be ordered by any court of competent jurisdiction.

Section 15.5 Construction. The definitions of the terms herein will apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun will include the corresponding masculine, feminine and neuter forms. The words "include", "includes" and "including" will be deemed to be followed by the phrase "without limitation". The word "or" is used in the inclusive sense (and/or). The word "will" shall be construed to have the same meaning and effect as the word "shall". The Parties each acknowledge that they have had the advice of counsel with respect to this Agreement, that this Agreement has been jointly drafted, and that no rule of strict construction will be applied in the interpretation hereof. Unless the context requires otherwise: (i) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or therein); (ii) any reference to any Applicable Law herein will be construed as referring to such Applicable Law as from time to time enacted, repealed or amended; (iii) any reference herein to any person will be construed to include the person's permitted successors and assigns; (iv) the words "herein", "hereof" and "hereunder", and words of similar import, will be construed to refer to this Agreement in its entirety and not to any particular provision hereof; and (v) all references herein to Articles, Sections, or Schedules, unless otherwise specifically provided will be construed to refer to Articles, Sections or Schedules of this Agreement. This Agreement has been executed in English, and the English version of this Agreement will control.

Section 15.6 Counterparts. This Agreement may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts will be deemed an original, will be construed together and will constitute one and the same instrument. Signature pages of this Agreement may be exchanged by facsimile or other electronic means without affecting

the validity thereof.

Section 15.7 Entire Agreement. This Agreement, including the attached Exhibits and Schedules, constitutes the entire agreement between the Parties as to the subject matter of this Agreement, and supersedes and merges all prior or contemporaneous negotiations, representations, agreements and understandings regarding the same.

Section 15.8 Force Majeure. Neither Party will be liable for delay or failure in the performance of any of its obligations hereunder (other than the payment of money) to the extent such delay or failure is due to causes beyond its reasonable control, including acts of God, fires, floods, earthquakes, labor strikes, hostilities, acts of war, terrorism, civil unrest, national emergencies, or epidemics (each, a "Force Majeure"); *provided* that the affected Party promptly notifies the other Party in writing (and continues to provide monthly status updates to the other Party for the duration of the effect); and *provided further* that the affected Party uses its commercially reasonable efforts to avoid or remove such causes of non-performance and to mitigate the effect of such occurrence, and will continue performance with reasonable dispatch whenever such causes are removed.

Section 15.9 Further Assurances. Each Party agrees to do and perform all such further acts and things and will execute and deliver such other agreements, certificates, instruments and documents necessary or that the other Party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and to evidence, perfect or otherwise confirm its rights hereunder.

Section 15.10 Headings. Headings and captions are for convenience only and are not to be used in the interpretation of this Agreement.

Section 15.11 No Set-Off. Except as expressly set forth in Section 7.2.7 (Calculation of Collaboration Profits), Section 8.6.1 (Withholding) or Section 8.6.2 (Indirect Taxes), neither Party will have the right to deduct from amounts otherwise payable hereunder any amounts payable to such Party (or its Affiliates) from the other Party (or its Affiliates), whether pursuant to this Agreement or otherwise.

Section 15.12 Notices. Any notice required or permitted to be given by this Agreement will be in writing, in English, and will be delivered by hand, overnight courier with tracking capabilities, mailed postage prepaid by registered or certified mail, or confirmed facsimile addressed as set forth below unless changed by notice so given:

If to Amgen:
Amgen Inc.
One Amgen Center Drive
Thousand Oaks, California 91320-1799
United States
Attention: Corporate Secretary
Telephone: [*]
Facsimile: [*]

If to BeiGene:
BeiGene Switzerland GmbH
c/o VISCHER AG
Aeschenvorstadt 4, 4051 Basel, Switzerland
Attention: Managing Director

With a copy to:
BeiGene USA, Inc.
55 Cambridge Parkway, Suite 700W
Cambridge, MA 02142, U.S.A.
Attention: General Counsel
Facsimile: [*]

If to BeiGene Parent:
BeiGene, Ltd.
c/o Mourant Governance Services (Cayman) Limited
94 Solaris Avenue, P.O. Box 1348
Grand Cayman KY1-1108, Cayman
Attention: Corporate Secretary

Any such notice will be deemed given on the date delivered. A Party may add, delete (so long as at least one person is remaining), or change the person or address to which notices should be sent at any time upon written notice delivered to the other Party in

accordance with this Section 15.12.

Section 15.13 Relationship of the Parties. Each Party is an independent contractor under this Agreement. Nothing contained herein will be deemed, for the purpose of any law, to create an employment, agency, joint venture or partnership relationship between the Parties or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. The Parties will operate their own businesses separately and independently and they will hold themselves out as, act as, and constitute independent contractors in all respects and not as principal and agent, partners or joint venturers. Neither Party will have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever. Neither Party shall make any filing or initiate any communication with a Governmental Authority that is inconsistent with this Section 15.13 and each Party shall notify the other Party within [*] of receiving any written communication from a Governmental Authority that asserts a position that is inconsistent with this Section 15.13.

Section 15.14 Severability. To the fullest extent permitted by Applicable Law, the Parties waive any provision of Applicable Law that would render any provision in this Agreement invalid, illegal or unenforceable in any respect. If any provision of this Agreement is held to be invalid, illegal or unenforceable, in any respect or to any extent, then in such respect and to such extent such provision will be given no effect by the Parties and will not form part of this Agreement. To the fullest extent permitted by Applicable Law, all other provisions of this Agreement will remain in full force and effect and the Parties will use their commercially reasonable efforts to negotiate a provision in replacement of the provision held invalid, illegal or unenforceable that is consistent with Applicable Law and achieves, as nearly as possible, the original intention of the Parties.

Section 15.15 Third Party Beneficiaries. Except as expressly provided with respect to Amgen Indemnitees or BeiGene Indemnities in Article XIII (Indemnification and Insurance), there are no Third Party beneficiaries intended hereunder and no Third Party will have any right or obligation hereunder.

Section 15.16 Waivers and Modifications. The failure of any Party to insist on the performance of any obligation hereunder will not be deemed to be a waiver of such obligation. Waiver of any breach of any provision hereof will not be deemed to be a waiver of any other breach of such provision or any other provision on such occasion or any other occasion. No waiver, modification, release or amendment of any right or obligation under or provision of this Agreement will be valid or effective unless in writing and signed by all Parties hereto.

****

(Signature page follows)

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

BEIGENE SWITZERLAND GMBH		AMGEN INC.	
By:	/s/ Guillaume Vignon	By:	/s/ Robert A. Bradway
Name:	Guillaume Vignon	Name:	Robert A. Bradway
Title:	Managing Director	Title:	Chairman of the Board, President & CEO

BEIGENE, LTD. (solely with respect to Section 13.6)

By:	/s/ Scott A. Samuels
Name:	Scott A. Samuels
Title:	Senior Vice President, General Counsel

Schedules and Exhibits Omitted from Collaboration Agreement

Pursuant to Regulation S-K, Item 601(a)(5), the schedules and exhibits to the Collaboration Agreement, as listed below, have not been filed. The Registrant agrees to furnish supplementally a copy of any omitted schedules or exhibits to the Securities and Exchange Commission upon request; provided, however, that the Registrant may request confidential treatment of omitted items.

SCHEDULES

Applicable Retail Baseline Price
Capability Build Services
Collaboration Profit Share Example
Distracting Products
Information Security Requirements
Initial JSC Membership
Initial Product Transfer Requirements
Initial Product Transition Services
Press Releases
Privacy and Data Protection
Products
Product Reversion Transition Services
Supply Price
Supply Term Sheet

EXHIBITS

Compliance Certification
Guarantee Agreement

GUARANTEE

Guarantee (this "**Guarantee**") dated as of October 31, 2019, made by and among BeiGene, Ltd., a Cayman Islands exempted company, with its registered offices c/o Mourant Governance Services (Cayman) Limited, 94 Solaris Avenue, P.O. Box 1348, Grand Cayman KY1-1108, Cayman Islands ("**Parent Co.**") and Amgen Inc., a Delaware corporation, with a principal place of business at One Amgen Center Drive, Thousand Oaks, California 91320 ("**Amgen**"). Capitalized terms used herein but not otherwise defined have the meanings ascribed to them in the Collaboration Agreement (as hereafter defined).

WHEREAS, BeiGene Switzerland GmbH, a Swiss corporation with a principal place of business at Aeschenvorstadt 5, 4051, Basel, Switzerland and an Affiliate of Parent Co. ("**Swiss Co.**"), Parent Co., solely with respect to Section 13.6 of the Collaboration Agreement, and Amgen have entered into a Collaboration Agreement, dated as of the date hereof (the "**Collaboration Agreement**");

WHEREAS, pursuant to Section 13.6 of the Collaboration Agreement, Parent Co., intending to be legally bound, has agreed to unconditionally guarantee the payment and performance of the Obligations (as defined below) of Swiss Co. and, in any case where Swiss Co. fails to pay or perform such Obligations in accordance with the terms of Collaboration Agreement, be jointly and severally liable for the immediate payment and performance of such Obligations.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Parent Co. and Amgen hereby agree to the following:

1. Guarantee of Parent Co.

   (a) In order to induce Amgen to enter into the Collaboration Agreement, Parent Co. hereby unconditionally and irrevocably guarantees in favor of Amgen, its successors, endorsees and assigns, the due and punctual performance of all obligations of Swiss Co. under the terms of the Collaboration Agreement, and the prompt payment of all amounts payable, from time to time, by Swiss Co. to Amgen under the terms of the Collaboration Agreement, in each case, for the avoidance of doubt, after compliance with any applicable grace periods or notice requirements with respect thereto as provided in the Collaboration Agreement (all of the foregoing being the "**Obligations**"). In case of the failure of Swiss Co. to punctually perform any such Obligations or pay any such Obligations, Parent Co. hereby agrees to jointly and severally perform, or cause to be performed, or to pay, or cause to be paid, any such amounts, in full, when and as the same shall become due or payable in accordance with the terms of the Collaboration Agreement, and further agrees that Amgen may at any time and from time to time, at its sole discretion, and so long as the Obligations remain unperformed or unpaid, take any and all actions available hereunder to collect Parent Co.'s liabilities hereunder or under Applicable Law.

   (b) Parent Co. hereby agrees that its obligations under this Guarantee constitute a guarantee of payment and performance and not of collection and are not in any way conditional or contingent upon any attempt to collect from or enforce against Swiss Co. all or any portion of the Obligations or upon any other condition or contingency. Parent Co. covenants that this Guarantee will not be discharged except by final, complete and irrevocable payment and performance of the Obligations contained in the Collaboration Agreement (including any Obligations with respect to this Guarantee). Parent Co. hereby irrevocably waives all rights of subrogation that it may at any time otherwise have as a result of this Guarantee (whether contractual, under Section 509 of Title 11 of the United States Code entitled "Bankruptcy," as now or hereafter in effect, or any

successor thereto, as hereafter amended, or otherwise) to the claims of Amgen against Swiss Co., or any other guarantor of or surety for the Obligations and all contractual, statutory or common law rights of reimbursement, contribution or indemnity from Swiss Co. that it may at any time otherwise have as a result of this Guarantee.

(c) The obligations of Parent Co. under this Guarantee shall not be subject to any counterclaim, setoff, deduction or defense based on any claim Parent Co. may have against Swiss Co. or any other person or entity, except in accordance with the terms of the Collaboration Agreement, and shall remain in full force and effect without regard to, and shall not be released, suspended, abated, deferred, reduced, limited, discharged, terminated or otherwise impaired or adversely affected by any circumstance or occurrence whatsoever, other than full satisfaction of the Obligations, including, without limitation: (i) the validity or enforceability of the Collaboration Agreement, (ii) any delay in enforcing any payment or other obligation under the Collaboration Agreement against Swiss Co., (iii) any waiver, consent, extension, indulgence, or other action or inaction under or in respect of the Collaboration Agreement, (iv) any extension or renewal of, or other change in the time, manner or place of payment or performance, of or in any other term of, any of the Obligations (including any increase in the amount of the Obligations payable under the Collaboration Agreement), (v) failure or omission or delay on the part of Amgen to comply with any term or provision of the Collaboration Agreement, (vi) any assignment or other transfer of any rights or obligations under the Collaboration Agreement (whether by operation of law or otherwise), (vii) the adequacy of any other means Amgen may have of obtaining payment or fulfillment of the Obligations, (viii) any insolvency, bankruptcy, reorganization or other similar proceeding affecting Swiss Co. or any other person now or hereafter liable to Amgen with respect to any of the Obligations, (ix) any change in the existence, structure or ownership of Swiss Co. or any person now or hereafter liable with respect to the Obligations or otherwise interested in the transactions contemplated by the Collaboration Agreement, or (x) the addition, substitution or release of any person now or hereafter liable with respect to the Obligations or the receipt by Amgen of partial satisfaction of the Obligations from Parent Co.. Without limiting the foregoing or Section 2(h) below, Parent Co. acknowledges and agrees that (i) its liability hereunder shall be unconditional and irrevocable irrespective of any Change of Control, Insolvency Event, other restructuring or reorganization or like event of Parent Co. and (ii) in the case of any such Change of Control, Insolvency Event, other restructuring or reorganization or like event, (A) this Guarantee shall automatically be binding upon and enforceable against any successor in interest to Parent Co. (whether direct or indirect, by purchase, merger, sale or disposition of stock or assets, consolidation, restructuring or otherwise) to the same extent as if such successor in interest were Parent Co. and (B) such successor in interest shall assume and agree, in writing, to perform in the same manner and to the same extent any obligations of Parent Co. as part of any such Change of Control.

(d) All payments by Parent Co. hereunder shall be in the same lawful currency as the Obligations in immediately available funds, and, except for any set-off, counterclaim, tax, deduction or withholding that Swiss Co. would be entitled to under the Collaboration Agreement, such payments shall be without set-off or counterclaim and free and clear of any tax, deduction or withholding of any kind.

(e) For any right of action with respect to an Obligation which shall accrue to Amgen under the Collaboration Agreement, Amgen may, at its option, proceed against Parent Co. to enforce this Guarantee without having to commence any action, join in any action, obtain any judgment, or exhaust any or all of Amgen’s rights, against Swiss Co. or any other person. The Obligations

shall conclusively be deemed to have been created, contracted or incurred in reliance upon this Guarantee, and all dealings between Swiss Co. and Parent Co., on the one hand, and Amgen, on the other, shall likewise be conclusively presumed to have been had or consummated in reliance upon this Guarantee. When pursuing its rights and remedies hereunder against Parent Co., subject to the last sentence of this Section 1(e), Amgen shall be under no obligation to pursue such rights and remedies it may have against Swiss Co. or any other person for the Obligations or any right of offset with respect thereto, and any failure by Amgen to pursue such other rights or remedies or to collect any payments from Swiss Co. or any such other person or to realize upon or to exercise any such right of offset, and any release by Amgen of Swiss Co. or any such other person or any right of offset, shall not relieve Parent Co. of any liability hereunder, and shall not impair or affect the rights and remedies, whether express, implied or available as a matter of law, of Amgen. Parent Co. hereby unconditionally and irrevocably waives, to the extent permitted by Applicable Law and other than those items specifically set forth in the Collaboration Agreement, (i) notice of acceptance of this Guarantee; (ii) presentment for payment, notice of non-payment or non-performance, demand, protest, notice of protest and notice of dishonor or default to anyone; (iii) all other notices to which Parent Co. may be entitled but which may be legally waived; (iv) any defense or circumstances which might otherwise constitute a legal or equitable discharge of Parent Co.; (v) any and all rights or defenses arising by reason of any Applicable Law which would require any election of remedies by Amgen and (vi) notice of any amendment or modification to the Collaboration Agreement. Parent Co. agrees that any notice made in accordance with the provisions of the Collaboration Agreement regarding the performance or non-performance of Swiss Co. with respect to any of its monetary or other Obligations under the Collaboration Agreement will be deemed notice to Parent Co. and duplicate notice shall not be required, and hereby irrevocably waives acceptance hereof. Notwithstanding anything to the contrary in this Guarantee, Amgen hereby agrees that it may only seek to enforce its rights and remedies against Parent Co. under this Guarantee with respect to any Obligation only after Swiss Co. fails, after any required notice and the expiration of any applicable grace periods in accordance with the Collaboration Agreement, to perform or pay such Obligation.

(f) Parent Co. hereby waives all defenses which may be available by virtue of any valuation, stay, moratorium or other similar Applicable Law now or hereafter in effect, any right to require the marshalling of assets of Swiss Co. or any other person liable with respect to any of the Obligations and all suretyship defenses generally.

(g) Amgen shall not be obligated to file any claim relating to the Obligations in the event that Amgen becomes subject to a bankruptcy reorganization or similar proceeding, and the failure of Amgen to so file shall not affect Parent Co.'s obligations hereunder. In the event that any payment to Amgen in respect of the Obligations is rescinded or must otherwise be returned for any reason whatsoever, Parent Co. shall remain liable hereunder with respect the Obligations as if any applicable payment had not been made, but only to the extent such Obligations remain outstanding.

(h) Parent Co. acknowledges that it will receive substantial direct and indirect benefits from the transactions contemplated by the Collaboration Agreement and that the waivers, agreements, covenants, obligations and other terms of this Guarantee are knowingly made and agreed to in contemplation of such benefits. Parent Co. hereby covenants and agrees that it (i) shall not, and it shall cause its controlled Affiliates not to, assert, directly or indirectly, in any proceeding that this Guarantee is illegal, invalid or unenforceable in accordance with its terms and (ii) except to the extent the Obligations are terminated pursuant to the Collaboration Agreement, (A) shall

use reasonable best efforts to maintain in full force and effect all consents of any Governmental Authority or other authority that are required to be obtained by it with respect to this Guarantee and will use reasonable best efforts obtain any such consents that may become necessary in the future and (B) will comply in all material respects with all Applicable Laws and orders to which it may be subject if failure to so comply would impair its ability to perform under this Guarantee.

(i) If Parent Co. fails to pay when due the Obligations, and, in order to obtain such payment, Amgen commences a suit which results in a judgment against Parent Co. for such payment, Parent Co. shall pay Amgen its reasonable costs and expenses (including attorneys' fees) in connection with such suit.

2. Miscellaneous.

(a) Any provision of this Guarantee may be amended or waived if, but only if, such amendment or waiver is in writing and is signed, in the case of an amendment, by each party to this Guarantee, or in the case of a waiver, by the party to this Guarantee against whom the waiver is to be effective. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

(b) This Guarantee shall remain in full force and effect until the satisfaction and payment in full of all Obligations.

(c) Parent Co. represents, warrants and covenants (upon which Amgen relies in acceptance of this Agreement and in executing and agreeing to perform Amgen's obligations under the Collaboration Agreement) that (i) it is a company duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation, (ii) it has full power and authority to execute and deliver this Guarantee and to perform its obligations hereunder, (iii) it has duly executed and delivered this Guarantee, (iv) this Guarantee constitutes the legal, valid and binding obligation of such party enforceable against such party in accordance with its terms subject to applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equity principles, (v) its execution and delivery of this Guarantee and the performance by it of its obligations under this Guarantee have been duly authorized by all requisite corporate or other action on its part and it has the financial capacity to pay all of the Obligations, (vi) its execution and delivery of, and its performance and compliance with the terms and provisions of, this Guarantee does not conflict with, result in a material breach or violation of, or constitute a default under the terms, conditions or provisions of (A) its amended and restated memorandum and articles of association or other applicable organizational agreements or governing instruments, (B) any statute, rule or regulation applicable to, or any judgment, order, injunction, decree, regulation or ruling of any court or other Governmental Authority to which it is subject or by which any of its assets are bound, or (C) any material agreement or contract to which it is a party or to which it or any of its property or assets are subject, and (vii) no authorization, consent, order, approval or license from, filing with, or other act by any Governmental Authority or other person or entity is or will be necessary to permit the valid execution and delivery by it of this Guarantee or the performance by it of the obligations to be performed by it under this Guarantee,

or if any such authorizations, consents, orders, approvals or licenses are required, they have been obtained.

(d) Section 15.4 of the Collaboration Agreement is hereby incorporated by reference, *mutatis mutandis*.

(e) This Guarantee may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Guarantee may be executed by facsimile or other form of electronic transmission, including pdf. Neither party may assign this Guarantee without the prior written consent of the other party. No provision of this Guarantee is intended to confer any rights, benefits, remedies, obligations, or liabilities hereunder upon any Person other than the parties hereto and their respective successors and assigns.

(f) All notices, consents, waivers, requests and other communications hereunder shall be in writing and shall be delivered in person, sent by overnight courier (e.g., Federal Express) or posted by registered or certified mail, return receipt requested, with postage prepaid, to following addresses of the parties:

If to Parent Co.

BeiGene, Ltd.
c/o Mourant Governance Services (Cayman) Limited
94 Solaris Avenue, P.O. Box 1348
Grand Cayman KY1-1108, Cayman
Attention: Corporate Secretary

with a copy (which shall not constitute notice) to:

BeiGene USA, Inc.
55 Cambridge Parkway, Suite 700W
Cambridge, MA 02142, U.S.A.
Attention: General Counsel
Facsimile: [*]

If to Amgen:

Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320
Attention: Corporate Secretary

with a copy (which shall not constitute notice) to:

One Amgen Center Drive
Thousand Oaks, CA 91320
Attention: SVP, Business Development

or to such other address or addresses as Amgen or Parent Co. may from time to time designate by notice as provided herein. Any such notice shall be deemed given (i) when actually received when so delivered personally or by overnight courier (receipt verified and provided that such date is a business day, otherwise it shall be deemed received on the next business day) or (ii) if mailed, other than during a period of general discontinuance or disruption of postal service due to strike, lockout or otherwise, on the fifth (5th) day after its postmarked date thereof.

(g) Nothing in this Section 2(g) shall preclude any party to the Collaboration Agreement or any other agreement contemplated thereby from making any permitted claim under the Collaboration Agreement or such other agreement, or seeking recourse against any successor in interest to Parent Co. Subject to the foregoing sentence and the last sentence of Section 1(c) above (but notwithstanding anything else to the contrary in this Guarantee), this Guarantee may only be enforced against, and any claims or causes of action that may be based on, arise out of or relate to this Guarantee, the transactions contemplated by this Guarantee, or the negotiation, execution or performance of this Guarantee, may only be made against, the parties to this Guarantee or their successors in interest, and no former, current or future Affiliates, directors, officers, shareholders, partners, members, attorneys, accountants, agents, representatives or employees of any party to this Guarantee, or any heirs, successors or permitted assigns of any of the foregoing shall have any liability for any obligations or liabilities of such party or for any claim (whether in tort, contract or otherwise) based upon, arising out of, or relating to, this Guarantee or the transactions contemplated by this Guarantee or in respect of any representations and warranties made or alleged to be made in connection herewith.

(h) If any provision hereof should be held invalid, illegal or unenforceable in any jurisdiction, the parties shall negotiate in good faith a valid, legal and enforceable substitute provision that most nearly reflects the original intent of the parties and all other provisions hereof shall remain in full force and effect in such jurisdiction and shall be construed in order to carry out the intentions of the parties as nearly as may be possible. Such invalidity, illegality or unenforceability shall not affect the validity, legality or enforceability of such provision in any other jurisdiction. Nothing in this Guarantee shall be interpreted so as to require a party to violate any applicable law.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, Parent Co. and Amgen have each caused this Guarantee to be executed in its corporate name by its duly authorized officer as of the date first set forth above.

BEIGENE, LTD.

By: /s/ Scott A. Samuels
Name: Scott A. Samuels
Title: Senior Vice President, General Counsel

AMGEN INC.

By: /s/ Robert A. Bradway
Name: Robert A. Bradway
Title: Chairman of the Board, President and Chief Executive Officer

Exhibit 21

AMGEN INC.

The following is a list of subsidiaries of the Company as of December 31, 2019, omitting some subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary.

SUBSIDIARY **(Name under which subsidiary does business)**	**STATE OF OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION**
Amgen Canada Inc.	Ontario
Amgen (Europe) GmbH	Switzerland
Amgen Fremont Inc.	Delaware
Amgen Global Finance B.V.	Netherlands
Amgen GmbH Germany	Germany
Amgen Holding No. 1 Limited	Bermuda
Amgen K-A, Inc.	Delaware
Amgen Manufacturing, Limited	Bermuda
Amgen Rockville, Inc.	Delaware
Amgen S.A.S.	France
Amgen SF, LLC	Delaware
Amgen Technology (Ireland) Unlimited Company	Ireland
Amgen Technology, Limited	Bermuda
Amgen USA Inc.	Delaware
Amgen Worldwide Holdings B.V.	Netherlands
ATL Holdings Limited	Bermuda
ATL Holdings II Limited	Bermuda
BioVex, Inc.	Delaware
Immunex Corporation	Washington
Immunex Rhode Island Corporation	Delaware
Onyx Pharmaceuticals, Inc.	Delaware
Onyx Therapeutics, Inc.	Delaware

Exhibit 31

CERTIFICATIONS

I, Robert A. Bradway, Chairman of the Board, Chief Executive Officer and President of Amgen Inc., certify that:

1. I have reviewed this Annual Report on Form 10-K of Amgen Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   (d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 12, 2020

/s/ ROBERT A. BRADWAY

Robert A. Bradway
Chairman of the Board,
Chief Executive Officer and President

CERTIFICATIONS

I, Peter H. Griffith, Executive Vice President and Chief Financial Officer of Amgen Inc., certify that:

1. I have reviewed this Annual Report on Form 10-K of Amgen Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   (d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 12, 2020

/s/ PETER H. GRIFFITH

Peter H. Griffith

Executive Vice President and Chief Financial Officer

Exhibit 32

Certification of Chief Executive Officer

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Amgen Inc. (the "Company") hereby certifies that:

(i) the accompanying Annual Report on Form 10-K of the Company for the period endedDecember 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 12, 2020

/s/ ROBERT A. BRADWAY

Robert A. Bradway

Chairman of the Board,

Chief Executive Officer and President

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 ("Section 906"), or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Amgen Inc. and will be retained by Amgen Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Certification of Chief Financial Officer

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Amgen Inc. (the "Company") hereby certifies that:

(i) the accompanying Annual Report on Form 10-K of the Company for the period endedDecember 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 12, 2020

/s/ PETER H. GRIFFITH

Peter H. Griffith

Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 ("Section 906"), or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Amgen Inc. and will be retained by Amgen Inc. and furnished to the Securities and Exchange Commission or its staff upon request.