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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**

For the transition period from to

Commission File Number: 001-12400

INCYTE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**94-3136539**
(State of other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
1801 Augustine Cut-Off Wilmington, DE	**19803**
(Address of principal executives offices)	(zip code)
	(302) 498-6700
	(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 exchange on which registered
Common Stock, $.001 par value per share	INCY	The Nasdaq Stock Market LLC

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 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, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (check one)

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 Exchange Act). Yes ☐ No ☒

The aggregate market value of Common Stock held by non-affiliates (based on the closing sale price on The Nasdaq Global Select Market on June 30, 2019) was approximately $15.4 billion.

As of February 6, 2020 there were 216,775,534 shares of Common Stock, $.001 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Items 10 (as to directors and Delinquent Section 16(a) Reports), 11, 12, 13 and 14 of Part III incorporate by reference information from the registrant's proxy statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the registrant's 2020 Annual Meeting of Stockholders to be held on May 26, 2020.

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Item 1. ***Business***

This report contains forward-looking statements that involve risks and uncertainties. These statements relate to future periods, future events or our future operating or financial plans or performance. Often, these statements include the words "believe," "expect," "target," "anticipate," "intend," "plan," "seek," "estimate," "potential," or words of similar meaning, or future or conditional verbs such as "will," "would," "should," "could," "might," or "may," or the negative of these terms, and other similar expressions. These forward-looking statements include statements as to:

- *the discovery, development, formulation, manufacturing and commercialization of our compounds, our drug candidates and JAKAFI®/JAKAVI® (ruxolitinib) and ICLUSIG® (ponatinib);*
- *our plans to further develop our operations outside of the United States;*
- *conducting clinical trials internally, with collaborators, or with clinical research organizations;*
- *our collaboration and strategic relationship strategy, and anticipated benefits and disadvantages of entering into collaboration agreements;*
- *our licensing, investment and commercialization strategies, including our plans to commercialize JAKAFI and ICLUSIG;*
- *the regulatory approval process, including obtaining U.S. Food and Drug Administration and other international health authorities approval for our products in the United States and abroad;*
- *the safety, effectiveness and potential benefits and indications of our drug candidates and other compounds under development;*
- *the timing and size of our clinical trials; the compounds expected to enter clinical trials; timing of clinical trial results;*
- *our ability to manage expansion of our drug discovery and development operations;*
- *future required expertise relating to clinical trials, manufacturing, sales and marketing;*
- *obtaining and terminating licenses to products, drug candidates or technology, or other intellectual property rights;*
- *the receipt from or payments pursuant to collaboration or license agreements resulting from milestones or royalties;*
- *plans to develop and commercialize products on our own;*
- *plans to use third-party manufacturers;*
- *plans for our manufacturing operations;*
- *expected expenses and expenditure levels; expected uses of cash; expected revenues and sources of revenues, including milestone payments; expectations with respect to inventory;*
- *expectations with respect to reimbursement for our products;*
- *the expected impact of recent accounting pronouncements and changes in tax laws;*
- *expected losses; fluctuation of losses; currency translation impact associated with collaboration royalties;*

- *our profitability; the adequacy of our capital resources to continue operations;*
- *the need to raise additional capital;*
- *the costs associated with resolving matters in litigation;*
- *our expectations regarding competition;*
- *expectations relating to our new European headquarters, including construction activities, and the anticipated completion date for our large molecule production facility;*
- *our investments, including anticipated expenditures, losses and expenses; and*
- *our patent prosecution and maintenance efforts.*

These forward-looking statements reflect our current views with respect to future events, are based on assumptions and are subject to risks and uncertainties. These risks and uncertainties could cause actual results to differ materially from those projected and include, but are not limited to:

- *our ability to successfully commercialize JAKAFI and ICLUSIG;*
- *our ability to maintain at anticipated levels reimbursement for our products from government health administration authorities, private health insurers and other organizations;*
- *our ability to establish and maintain effective sales, marketing and distribution capabilities;*
- *the risk of reliance on other parties to manufacture our products, which could result in a short supply of our products, increased costs, and withdrawal of regulatory approval;*
- *our ability to maintain regulatory approvals to market our products;*
- *our ability to achieve a significant market share in order to achieve or maintain profitability;*
- *the risk of civil or criminal penalties if we market our products in a manner that violates health care fraud and abuse and other applicable laws, rules and regulations;*
- *our ability to discover, develop, formulate, manufacture and commercialize our drug candidates;*
- *the risk of unanticipated delays in, or discontinuations of, research and development efforts;*
- *the risk that previous preclinical testing or clinical trial results are not necessarily indicative of future clinical trial results;*
- *risks relating to the conduct of our clinical trials;*
- *changing regulatory requirements;*
- *the risk of adverse safety findings;*
- *the risk that results of our clinical trials do not support submission of a marketing approval application for our drug candidates;*
- *the risk of significant delays or costs in obtaining regulatory approvals;*

- *risks relating to our reliance on third-party manufacturers, collaborators, and clinical research organizations;*
- *risks relating to the development of new products and their use by us and our current and potential collaborators;*
- *risks relating to our inability to control the development of out-licensed compounds or drug candidates;*
- *risks relating to our collaborators' ability to develop and commercialize JAKAVI, OLUMIANT and the drug candidates licensed from us;*
- *costs associated with prosecuting, maintaining, defending and enforcing patent claims and other intellectual property rights;*
- *our ability to maintain or obtain adequate product liability and other insurance coverage;*
- *the risk that our drug candidates may not obtain or maintain regulatory approval;*
- *the impact of technological advances and competition, including potential generic competition;*
- *our ability to compete against third parties with greater resources than ours;*
- *risks relating to changes in pricing and reimbursement in the markets in which we may compete;*
- *risks relating to governmental healthcare reform efforts, including efforts to control, set or cap pricing for our commercial drugs in the U.S and abroad;*
- *competition to develop and commercialize similar drug products;*
- *our ability to obtain and maintain patent protection and freedom to operate for our discoveries and to continue to be effective in expanding our patent coverage;*
- *the impact of changing laws on our patent portfolio;*
- *developments in and expenses relating to litigation;*
- *our ability to in-license drug candidates or other technology;*
- *unanticipated construction, other delays or changes in plans relating to our new European headquarters and large molecule production facility;*
- *our ability to integrate successfully acquired businesses, development programs or technology;*
- *our ability to obtain additional capital when needed;*
- *fluctuations in net cash provided and used by operating, financing and investing activities;*
- *our ability to analyze the effects of new accounting pronouncements and apply new accounting rules;*
- *our history of operating losses; and*
- *the risks set forth under "Risk Factors."*

Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by federal securities laws, we undertake no obligation to update any forward-looking statements for any reason, even if new information becomes available or other events occur in the future.

In this report all references to "Incyte," "we," "us," "our" or the "Company" mean Incyte Corporation and our subsidiaries, except where it is made clear that the term means only the parent company.

Incyte and JAKAFI are our registered trademarks. We also refer to trademarks of other corporations and organizations in this Annual Report on Form 10-K.

Overview

Incyte is a biopharmaceutical company focused on the discovery, development and commercialization of proprietary therapeutics. Our global headquarters is located in Wilmington, Delaware. We conduct our European clinical development and commercial operations from our offices in Geneva, Switzerland, and Lausanne, Switzerland; and we conduct our Japanese operations from our office in Tokyo.

Marketed Indications - JAKAFI (ruxolitinib)

JAKAFI (ruxolitinib) is our first product to be approved for sale in the United States. It was approved by the U.S. Food and Drug Administration (FDA) in November 2011 for the treatment of adults with intermediate or high-risk myelofibrosis, in December 2014 for the treatment of adults with polycythemia vera who have had an inadequate response to or are intolerant of hydroxyurea and in May 2019 for the treatment of steroid-refractory acute graft-versus-host disease (GVHD) in adult and pediatric patients 12 years and older. Myelofibrosis and polycythemia vera are both myeloproliferative neoplasms (MPNs), a type of rare blood cancer, and GVHD is an adverse immune response to an allogeneic hematopoietic stem cell transplant (HSCT). Under our collaboration agreement with Novartis International Pharmaceutical Ltd., Novartis received exclusive development and commercialization rights to ruxolitinib outside of the United States for all hematologic and oncologic indications and sells ruxolitinib outside of the United States under the name JAKAVI.

In 2003, we initiated a research and development program to explore the inhibition of enzymes called janus associated kinases (JAK). The JAK family is composed of four tyrosine kinases—JAK1, JAK2, JAK3 and Tyk2—that are involved in the signaling of a number of cytokines and growth factors. JAKs are central to a number of biologic processes, including the formation and development of blood cells and the regulation of immune functions. Dysregulation of the JAK-STAT signaling pathway has been associated with a number of diseases, including myeloproliferative neoplasms, other hematological malignancies, rheumatoid arthritis and other chronic inflammatory diseases.

We have discovered multiple potent, selective and orally bioavailable JAK inhibitors that are selective for JAK1 or JAK1 and JAK2. JAKAFI is the most advanced compound in our JAK program. It is an oral JAK1 and JAK2 inhibitor.

JAKAFI is marketed in the United States through our own specialty sales force and commercial team. JAKAFI was the first FDA-approved JAK inhibitor for any indication and was the first FDA-approved product in all three of its current indications. JAKAFI remains the first-line standard of care in MF and remains the only FDA-approved product for PV and steroid-refractory acute GVHD. The FDA has granted JAKAFI orphan drug status for MF, PV, ET, acute lymphoblastic leukemia (ALL) and GVHD.

To help ensure that all eligible patients have access to JAKAFI, we have established a patient assistance program called IncyteCARES (CARES stands for Connecting to Access, Reimbursement, Education and Support). IncyteCARES helps ensure that any patient with intermediate or high-risk MF, uncontrolled PV or steroid-refractory acute GVHD who meets certain eligibility criteria and is prescribed JAKAFI has access to the product regardless of ability to pay and has access to ongoing support and educational resources during treatment.

JAKAFI is distributed primarily through a network of specialty pharmacy providers and wholesalers that allow for efficient delivery of the medication by mail directly to patients or direct delivery to the patient's pharmacy. Our

distribution process uses a model that is well-established and familiar to physicians who practice within the oncology field.

To further support appropriate use and future development of JAKAFI, our U.S. Medical Affairs department is responsible for providing appropriate scientific and medical education and information to physicians, preparing scientific presentations and publications, and overseeing the process for supporting investigator sponsored trials.

Myelofibrosis. Myelofibrosis is a rare, life-threatening condition. MF, considered the most serious of the myeloproliferative neoplasms, can occur either as primary MF, or as secondary MF that develops in some patients who previously had polycythemia vera or essential thrombocythemia. We estimate there are between 16,000 and 18,500 patients with MF in the United States. Based on the modern prognostic scoring systems referred to as International Prognostic Scoring System and Dynamic International Prognostic Scoring System, we believe intermediate and high-risk patients represent 80% to 90% of all patients with MF in the United States and encompass patients over the age of 65, or patients who have or have ever had any of the following: anemia, constitutional symptoms, elevated white blood cell or blast counts, or platelet counts less than 100,000 per microliter of blood.

Most MF patients have enlarged spleens and many suffer from debilitating symptoms, including abdominal discomfort, pruritus (itching), night sweats and cachexia (involuntary weight loss). There were no FDA approved therapies for MF until the approval of JAKAFI.

The FDA approval was based on results from two randomized Phase III trials (COMFORT-I and COMFORT-II), which demonstrated that patients treated with JAKAFI experienced significant reductions in splenomegaly (enlarged spleen). COMFORT-I also demonstrated improvements in symptoms. The most common hematologic adverse reactions in both trials were thrombocytopenia and anemia. These events rarely led to discontinuation of JAKAFI treatment. The most common non-hematologic adverse reactions were bruising, dizziness and headache.

In August 2014, the FDA approved supplemental labeling for JAKAFI to include Kaplan-Meier overall survival curves as well as additional safety and dosing information. The overall survival information is based on three-year data from COMFORT-I and II, and shows that at three years the probability of survival for patients treated with JAKAFI in COMFORT-I was 70% and for those patients originally randomized to placebo it was 61%. In COMFORT-II, at three years the probability of survival for patients treated with JAKAFI was 79% and for patients originally randomized to best available therapy it was 59%. In December 2016, we announced an exploratory pooled analysis of data from the five-year follow-up of the COMFORT-I and COMFORT-II trials of patients treated with JAKAFI, which further supported previously published overall survival findings.

In September 2016, we announced that JAKAFI had been included as a recommended treatment in the latest National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology for myelofibrosis, underscoring the important and long-term clinical benefits seen in patients treated with JAKAFI.

In October 2017, the FDA approved updated labeling for JAKAFI to include the addition of new patient-reported outcome (PRO) data from the COMFORT-I study, as well as updating the warning related to progressive multifocal leukoencephalopathy. An exploratory analysis of PRO data of patients with myelofibrosis receiving JAKAFI showed improvement in fatigue-related symptoms at Week 24. Fatigue response (defined as a reduction of 4.5 points or more from baseline in the PROMIS® Fatigue total score) was reported in 35% of patients treated with JAKAFI versus 14% of the patients treated with placebo.

Polycythemia Vera. PV is a myeloproliferative neoplasm typically characterized by elevated hematocrit, the volume percentage of red blood cells in whole blood, which can lead to a thickening of the blood and an increased risk of blood clots, as well as an elevated white blood cell and platelet count. When phlebotomy can no longer control PV, chemotherapy such as hydroxyurea, or interferon, is utilized. Approximately 25,000 patients with PV in the United States are considered uncontrolled because they have an inadequate response to or are intolerant of hydroxyurea, the most commonly used chemotherapeutic agent for the treatment of PV.

In December 2014, the FDA approved JAKAFI for the treatment of patients with PV who have had an inadequate response to or are intolerant of hydroxyurea. The approval of JAKAFI for PV was based on data from the pivotal Phase III

RESPONSE trial. In this trial, patients treated with JAKAFI demonstrated superior hematocrit control and reductions in spleen volume compared to best available therapy. In addition, a greater proportion of patients treated with JAKAFI achieved complete hematologic remission—which was defined as achieving hematocrit control, and lowering platelet and white blood cell counts. In the RESPONSE trial, the most common hematologic adverse reactions (incidence > 20%) were thrombocytopenia and anemia. The most common non-hematologic adverse events (incidence >10%) were headache, abdominal pain, diarrhea, dizziness, fatigue, pruritus, dyspnea and muscle spasms.

In March 2016, the FDA approved supplemental labeling for JAKAFI to include additional safety data as well as efficacy analyses from the RESPONSE trial to assess the durability of response in JAKAFI treated patients after 80 weeks. At this time, 83% patients were still on treatment, and 76% of the responders at 32 weeks maintained their response through 80 weeks.

In June 2016, we announced data from the Phase III RESPONSE-2 study of JAKAFI in patients with inadequately controlled PV that was resistant to or intolerant of hydroxyurea who did not have an enlarged spleen. These data showed that JAKAFI was superior to best available therapy in maintaining hematocrit control (62.2% vs. 18.7%, respectively; P<0.0001) without the need for phlebotomy.

In August 2017, we announced that JAKAFI had been included as a recommended treatment in the latest NCCN Guidelines for patients with polycythemia vera who have had an inadequate response to first-line therapies, such as hydroxyurea.

Graft-versus-host disease. GVHD is a condition that can occur after an allogeneic HSCT (the transfer of genetically dissimilar stem cells or tissue). In GVHD, the donated bone marrow or peripheral blood stem cells view the recipient's body as foreign and attack various tissues. 12-month survival rates in patients with Grade III or IV steroid-refractory acute GVHD are 50% or less, and the incidence of steroid-refractory acute and chronic GVHD is approximately 3,000 per year in the United States.

In June 2016, we announced that the FDA granted Breakthrough Therapy designation for ruxolitinib in patients with acute GVHD. In May 2019, the FDA approved JAKAFI for the treatment of steroid-refractory acute GVHD in adult and pediatric patients 12 years and older. The approval was based on data from REACH1, an open-label, single-arm, multicenter study of JAKAFI in combination with corticosteroids in patients with steroid-refractory grade II-IV acute GVHD. The overall response rate (ORR) in patients refractory to steroids alone was 57% with a complete response (CR) rate of 31%. The most frequently reported adverse reactions among all study participants were infections (55%) and edema (51%), and the most common laboratory abnormalities were anemia (75%), thrombocytopenia (75%) and neutropenia (58%).

We have retained all development and commercialization rights to JAKAFI in the United States and are eligible to receive development and commercial milestones as well as royalties from product sales outside the United States. We hold patents that cover the composition of matter and use of ruxolitinib which patents, including applicable extensions, expire in late 2027.

Marketed Indications - ICLUSIG (ponatinib)

In June 2016, we acquired the European operations of ARIAD Pharmaceuticals, Inc. (ARIAD) and obtained an exclusive license to develop and commercialize ICLUSIG (ponatinib) in Europe and other select countries. ICLUSIG is a kinase inhibitor. The primary target for ICLUSIG is BCR-ABL, an abnormal tyrosine kinase that is expressed in chronic myeloid leukemia (CML) and Philadelphia-chromosome positive acute lymphoblastic leukemia (Ph+ ALL).

In the European Union, ICLUSIG is approved for the treatment of adult patients with chronic phase, accelerated phase or blast phase CML who are resistant to dasatinib or nilotinib; who are intolerant to dasatinib or nilotinib and for whom subsequent treatment with imatinib is not clinically appropriate; or who have the T315I mutation, or the treatment of adult patients with Ph+ ALL who are resistant to dasatinib; who are intolerant to dasatinib and for whom subsequent treatment with imatinib is not clinically appropriate; or who have the T315I mutation.

Clinical Programs in Oncology

We believe that the future of cancer treatment lies in the use of targeted therapies, which aim to block the effects of cancer-causing mutations, and immune therapies, which seek to recruit the patient's own immune system to tackle cancer. Our most advanced programs are detailed below.

JAK Inhibition

As part of our ongoing LIMBER (Leadership in MPNs BEyond Ruxolitinib) clinical development initiative, which is designed to improve and expand therapeutic options for patients with myeloproliferative neoplasms, we are evaluating combinations of ruxolitinib with other therapeutic modalities, as well as developing a once-a-day formulation of ruxolitinib for potential use as monotherapy and combination therapy. Based on positive Phase II data, we are preparing a pivotal trial program of ruxolitinib in combination with parsaclisib (PI3Kδ). Additional Phase II trials combining ruxolitinib with investigational agents from our portfolio such as INCB53914 (PIM), INCB57643 (BET) and INCB00928 (ALK2) in patients with MF are either ongoing or in preparation.

Following positive proof-of-concept data, we initiated the pivotal RESET trial investigating ruxolitinib for the treatment of patients with essential thrombocythemia (ET). In February 2020, it was decided to end recruitment into the RESET trial.

The REACH clinical program evaluates ruxolitinib in patients with steroid-refractory GVHD and includes REACH2, a Novartis-sponsored Phase III trial in steroid-refractory acute GVHD, and REACH3, a Phase III trial in steroid-refractory chronic GVHD that is co-sponsored by Incyte and Novartis.

In October 2019, we and Novartis announced that REACH2 met its primary endpoint of superior ORR at Day 28 with ruxolitinib treatment compared to best available therapy. No new safety signals were observed, and the ruxolitinib safety profile in REACH2 was consistent with that seen in previously reported studies in steroid-refractory acute GVHD. The result of REACH3 is expected to be available in 2020.

A second JAK inhibitor in development is itacitinib, which is a selective JAK1 inhibitor. In January 2020, we announced that in the pivotal Phase III GRAVITAS-301 trial in patients with steroid-naïve acute GVHD, itacitinib plus corticosteroids did not meet the primary endpoint of improving ORR at Day 28 compared to placebo plus corticosteroids. Itacitinib is also being evaluated in GRAVITAS-309, a pivotal Phase III trial of itacitinib in patients with steroid-naïve chronic GVHD. The FDA has granted itacitinib orphan drug status for GVHD.

FGFR1/2/3 Inhibition

Pemigatinib is a potent and selective inhibitor of the fibroblast growth factor receptor (FGFR) isoforms 1, 2 and 3 with demonstrated activity in preclinical studies. The FGFR family of receptor tyrosine kinases can act as oncogenic drivers in a number of liquid and solid tumor types.

We initiated the FIGHT clinical program to evaluate pemigatinib across a spectrum of cancers that are driven by FGF/FGFR alterations. The program initially included three Phase II trials – FIGHT-201 in patients with bladder cancer, FIGHT-202 in patients with cholangiocarcinoma, and FIGHT-203 in patients with 8p11 myeloproliferative syndrome (8p11 MPN). Based on data generated from these ongoing trials, we have initiated additional trials, including FIGHT-205, which is evaluating pemigatinib plus pembrolizumab versus pemigatinib alone versus standard of care for metastatic or unresectable urothelial carcinoma in cisplatin-ineligible patients whose tumors express FGFR3 mutation or rearrangement, and FIGHT-207 which is a solid tumor-agnostic trial evaluating pemigatinib in patients with driver-alterations of FGF/FGFR.

In September 2019, we announced positive updated data from the FIGHT-202 trial evaluating pemigatinib in patients with advanced/metastatic or surgically unresectable cholangiocarcinoma who failed at least one previous treatment. FIGHT-302, a Phase III trial of pemigatinib for the first-line treatment of patients with cholangiocarcinoma and FGFR2 fusions or rearrangements was initiated in June 2019.

In November 2019, we announced that the FDA had accepted for Priority Review our New Drug Application (NDA) for pemigatinib as a treatment for patients with previously treated, locally advanced or metastatic cholangiocarcinoma with FGFR2 fusions or rearrangements. The Prescription Drug User Fee Act (PDUFA) target action date is May 30, 2020. In January 2020, we announced that the Marketing Authorization Application (MAA) for pemigatinib as a treatment of adults with locally advanced or metastatic cholangiocarcinoma with an FGFR2 fusion or rearrangement that is relapsed or refractory after at least one line of systemic therapy had been validated by the European Medicines Agency (EMA).

Cholangiocarcinoma is a cancer that arises from the cells within the bile ducts. It is often diagnosed late (stages III and IV) and the prognosis is poor. The incidence of cholangiocarcinoma with FGFR2 fusions or rearrangements is increasing, and it is currently estimated that there are 2,000-3,000 patients in the U.S., Europe and Japan.

Pemigatinib has been granted Breakthrough Therapy designation by the FDA as a treatment for patients with previously treated, advanced/metastatic or unresectable FGFR2 translocated cholangiocarcinoma and as a treatment for patients with myeloid/lymphoid neoplasms with FGFR1 rearrangement (8p11 MPN) who have relapsed or are refractory to initial chemotherapy.

PD-1 Antagonism

In October 2017, we and MacroGenics, Inc. announced an exclusive global collaboration and license agreement for MacroGenics' INCMGA0012, an investigational monoclonal antibody that inhibits PD-1. Under this collaboration, we obtained exclusive worldwide rights for the development and commercialization of INCMGA0012 in all indications. The molecule is currently being evaluated both as monotherapy and in combination therapy across various tumor types. Potentially registration-enabling trials in anal cancer, MSI-high endometrial cancer and Merkel cell carcinoma are ongoing, and a Phase III program evaluating INCMGA0012 in first-line non-small cell lung cancer (NSCLC) is in preparation.

PI3K-delta Inhibition

The PI3K-delta pathway mediates oncogenic signaling in B cell malignancies. Parsaclisib is a PI3K-delta inhibitor that has demonstrated potency and selectivity in preclinical studies and has potential therapeutic utility in the treatment of patients with lymphoma. We initiated the CITADEL clinical program to evaluate parsaclisib in non-Hodgkin lymphomas, and we are currently running Phase II trials in follicular lymphoma, marginal zone lymphoma and mantle cell lymphoma.

	Indication and status
Ruxolitinib (JAK1/JAK2)	Steroid-refractory chronic GVHD: Phase III (REACH3)[1] Refractory myelofibrosis: Phase III with parsaclisib (PI3Kδ) in preparation; Phase II with INCB53914 (PIM) ongoing, INCB57643 (BET) in preparation Myelofibrosis: Phase II with INCB00928 (ALK2) in preparation
Once-a-day ruxolitinib (JAK1/JAK2)	Myelofibrosis and polycythemia vera: clinical pharmacology studies
Itacitinib (JAK1)	Treatment-naïve chronic GVHD: Phase III (GRAVITAS-309)
Pemigatinib (FGFR1/2/3)	Cholangiocarcinoma: Phase II (FIGHT-202), Phase III (FIGHT-302) Bladder cancer: Phase II (FIGHT-201, FIGHT-205) 8p11 MPN: Phase II (FIGHT-203) Tumor agnostic: Phase II (FIGHT-207)
Parsaclisib (PI3Kδ)	Follicular lymphoma: Phase II (CITADEL-203) Marginal zone lymphoma: Phase II (CITADEL-204) Mantle cell lymphoma: Phase II (CITADEL-205)

INCMGA0012 (PD-1)[2]	MSI-high endometrial cancer: Phase II (POD1UM-101) Merkel cell carcinoma: Phase II (POD1UM-201) Anal cancer: Phase II (POD1UM-202) NSCLC: Phase III (PODIUM-301, PODIUM-304) in preparation

1. Clinical development of ruxolitinib in GVHD conducted in collaboration with Novartis.
2. INCMGA0012 licensed from MacroGenics.

Earlier-Stage Programs

We also have a number of other earlier-stage clinical programs, as detailed in the table below. We intend to describe these programs more fully if we obtain clinical proof-of-concept and establish that a program warrants further development in a specific indication or group of indications.

Modality	Candidates
Small molecules	INCB01158 (ARG)[1], INCB81776 (AXL/MER), INCB62079 (FGFR4), epacadostat (IDO1), INCB59872 (LSD1), INCB86550 (PD-L1)
Monoclonal antibodies[2]	INCAGN1876 (GITR), INCAGN2385 (LAG-3), INCAGN1949 (OX40), INCAGN2390 (TIM-3)
Bispecific antibodies	MCLA-145 (PD-L1xCD137)[3]

1. INCB01158 development in collaboration with Calithera Biosciences, Inc.
2. Discovery collaboration with Agenus Inc.
3. MCLA-145 development in collaboration with Merus N.V.

Clinical Programs outside Oncology

In June 2018, we announced that a Phase II trial of ruxolitinib cream for the topical treatment of atopic dermatitis showed a significant benefit over vehicle control and a global, pivotal Phase III program was initiated in December 2018. In January 2020, we announced that TRuE-AD2, the first of two Phase III trials in the TRuE-AD development program of ruxolitinib cream in patients with mild-to-moderate atopic dermatitis, met its primary endpoint. The overall efficacy and safety profile observed in TRuE-AD2 was consistent with previous data, and no new safety signals were observed. Atopic dermatitis is a skin disorder that causes the skin to become red, scaly, and itchy. Onset can occur at any age, but is more common in infants and children. In the United States, we estimate that there are approximately 10 million diagnosed and treated adolescent and adult patients with mild to moderate atopic dermatitis.

In June 2019, primary endpoint data after 6 months of therapy from the Phase II trial of ruxolitinib cream in patients with vitiligo showed a significant benefit over vehicle control, and a global, pivotal Phase III program was initiated in September 2019. In October 2019, updated data from the Phase II trial showed, after 12 months of therapy, additional improvement in the repigmentation of vitiligo lesions. Vitiligo is a long-term skin condition characterized by patches of the skin losing their pigment. It is estimated that vitiligo affects 0.5-2% of the US population and, therefore, there are at least 1.5 million patients in the United States with this disorder. There are no FDA approved treatments for repigmentation of vitiligo lesions.

A Phase II trial of INCB54707, a JAK1 selective inhibitor, is ongoing in patients with hidradenitis suppurativa, an inflammatory skin disease. A Phase II trial of parsaclisib in patients with autoimmune hemolytic anemia, a rare red blood cell disorder, is also ongoing.

A Phase II trial of INCB00928 is in preparation for patients with fibrodysplasia ossificans progressiva, a disorder in which muscle tissue and connective tissue are gradually replaced by bone.

The Phase II trial of itacitinib in patients with ulcerative colitis has been discontinued and initial data from the Phase II trial of parsaclisib in patients with Sjögren's syndrome do not warrant continuation of the trial.

	Indication and status
Ruxolitinib cream[1] (JAK1/JAK2)	Atopic dermatitis: Phase III (TRuE-AD1 ongoing, TRuE-AD2 primary endpoint met) Vitiligo: Phase III (TRuE-V1, TRuE-V2)
INCB54707 (JAK1)	Hidradenitis suppurativa: Phase II
Parsaclisib (PI3Kδ)	Autoimmune hemolytic anemia: Phase II
INCB00928 (ALK2)	Fibrodysplasia ossificans progressiva: Phase II in preparation

[1.] Novartis' rights for ruxolitinib outside of the United States under our Collaboration and License Agreement with Novartis do not include topical administration.

Partnered Programs

Baricitinib

We have a second JAK1 and JAK2 inhibitor, baricitinib, which is subject to our collaboration agreement with Eli Lilly and Company, in which Lilly received exclusive worldwide development and commercialization rights to the compound for inflammatory and autoimmune diseases. The Phase III program of baricitinib in patients with rheumatoid arthritis incorporated all three rheumatoid arthritis populations (methotrexate naïve, biologic naïve, and tumor necrosis factor (TNF) inhibitor inadequate responders); used event rates to fully power the baricitinib program for structural comparison and non-inferiority vs. adalimumab; and evaluated patient-reported outcomes. All four Phase III trials met their respective primary endpoints.

In January 2016, Lilly submitted an NDA to the FDA and an MAA to the EMA for baricitinib as treatment for rheumatoid arthritis. In February 2017, we and Lilly announced that the European Commission approved baricitinib as OLUMIANT for the treatment of moderate-to-severe rheumatoid arthritis in adult patients who have responded inadequately to, or who are intolerant to, one or more disease-modifying antirheumatic drugs (DMARDs). In July 2017, Japan's Ministry of Health, Labor and Welfare (MHLW) granted marketing approval for OLUMIANT for the treatment of rheumatoid arthritis (including the prevention of structural injury of joints) in patients with inadequate response to standard-of-care therapies. In June 2018, the FDA approved the 2mg dose of OLUMIANT for the treatment of adults with moderately-to-severely active rheumatoid arthritis (RA) who have had an inadequate response to one or more tumor necrosis factor (TNF) inhibitor therapies.

Rheumatoid Arthritis. Rheumatoid arthritis is an autoimmune disease characterized by aberrant or abnormal immune mechanisms that lead to joint inflammation and swelling and, in some patients, the progressive destruction of joints. Rheumatoid arthritis can also affect connective tissue in the skin and organs of the body.

Current rheumatoid arthritis treatments include the use of non-steroidal anti-inflammatory drugs, disease-modifying anti-rheumatic drugs, such as methotrexate, and the newer biological response modifiers that target pro-inflammatory cytokines, such as tumor necrosis factor, implicated in the pathogenesis of rheumatoid arthritis. None of these approaches to treatment is curative; therefore, there remains an unmet need for new safe and effective treatment options for these patients. Rheumatoid arthritis is estimated to affect about 1% of the world's population.

Atopic Dermatitis. Atopic dermatitis (AtD) is a condition that makes the skin red and itchy and which is common in children but can occur at any age. Atopic dermatitis is long lasting and tends to flare periodically and then subside. Lilly has conducted a Phase IIa trial and a Phase III program to evaluate the safety and efficacy of baricitinib in patients with moderate-to-severe atopic dermatitis. The JAK-STAT pathway has been shown to play an essential role in the dysregulation of immune responses in atopic dermatitis. Therefore, we believe that inhibiting cytokine pathways dependent

on JAK1 and JAK2 may lead to positive clinical outcomes in atopic dermatitis.

In February 2019, we and Lilly announced that baricitinib met the primary endpoint in BREEZE-AD1 and BREEZE-AD2, two Phase III studies evaluating the efficacy and safety of baricitinib monotherapy for the treatment of adult patients with moderate to severe AtD and, in August 2019, we and Lilly announced that baricitinib met the primary endpoint in BREEZE-AD7, a Phase III study evaluating the efficacy and safety of baricitinib in combination with standard-of-care topical corticosteroids in patients with moderate to severe AtD. In January 2020, we and Lilly announced that baricitinib met the primary endpoint in both BREEZE-AD4 and BREEZE-AD5, the results of which complete the placebo-controlled data program intended to support global registrations. In January 2020, Lilly announced that baricitinib had been submitted for regulatory review in Europe as a treatment for patients with moderate to severe atopic dermatitis.

Systemic Lupus Erythematosus. Systemic lupus erythematosus (SLE) is a chronic disease that causes inflammation. In addition to affecting the skin and joints, it can affect other organs in the body such as the kidneys, the tissue lining the lungs and heart, and the brain. Lilly has conducted a Phase II trial to evaluate the safety and efficacy of baricitinib in patients with SLE. Baricitinib's activity profile suggests that it inhibits cytokines implicated in SLE such as type I interferon (IFN), type II IFN-γ, IL-6, and IL-23 as well as other cytokines that may have a role in SLE, including granulocyte macrophage colony stimulating factor (GM-CSF) and IL-12. The potential impact of baricitinib on the IFN pathway is highly relevant to SLE, as clinical and preclinical studies have established that this pathway is involved in the pathogenesis of SLE. Lilly is currently running a Phase III trial of baricitinib in patients with SLE.

Alopecia Areata. Alopecia areata is an autoimmune disorder in which the immune system attacks the hair follicles, causing hair loss in patches. Lilly has initiated the Phase III portion of the ongoing Phase II/III trial designed to evaluate the safety and efficacy of baricitinib in patients with severe alopecia areata.

Capmatinib

Capmatinib is a potent and highly selective MET inhibitor. The investigational compound has demonstrated inhibitory activity in cell-based biochemical and functional assays that measure MET signaling and MET dependent cell proliferation, survival and migration. Under our agreement, Novartis received worldwide exclusive development and commercialization rights to capmatinib and certain back-up compounds in all indications. Capmatinib is being evaluated in patients with hepatocellular carcinoma, non-small cell lung cancer and other solid tumors, and may have potential utility as a combination agent.

MET is a clinically validated receptor kinase cancer target. Abnormal MET activation in cancer correlates with poor prognosis. Dysregulation of the MET pathway triggers tumor growth, formation of new blood vessels that supply the tumor with nutrients, and causes cancer to spread to other organs. Dysregulation of the MET pathway is seen in many types of cancers, including lung, kidney, liver, stomach, breast and brain.

In June 2019, we and Novartis announced positive updated results from the GEOMETRY mono-1 Phase II clinical trial of capmatinib in patients with advanced NSCLC harboring MET exon 14 skipping mutations. In December 2019, Novartis submitted the NDA seeking approval of capmatinib, and in February 2020 we and Novartis announced that the NDA had been accepted for Priority Review by the FDA. Capmatinib has also been granted Breakthrough Therapy designation by the FDA as a treatment for patients with metastatic NSCLC harboring MET exon-14 skipping mutations, both for treatment-naive patients and for patients previously treated with platinum-based chemotherapy.

NSCLC is the most common type of lung cancer, impacting more than 2 million people per year. Approximately 3-4 percent of all patients with NSCLC have an identified MET mutation. Though rare, this mutation is an indicator of especially poor prognosis and poor responses to standard therapies, including immunotherapy. There is currently no approved therapy designed to selectively target this mutation.

	Indication and status
Baricitinib (JAK1/JAK2)[1]	Atopic dermatitis: Phase III (BREEZE-AD) Systemic lupus erythematosus: Phase III Severe alopecia areata: Phase III
Capmatinib (MET)[2]	NSCLC (with MET exon 14 skipping mutations): NDA submitted by Novartis in 2019

[1.] Baricitinib licensed to Lilly

[2.] Capmatinib licensed to Novartis

License Agreements and Business Relationships

We establish business relationships, including collaborative arrangements with other companies and medical research institutions to assist in the clinical development and/or commercialization of certain of our drugs and drug candidates and to provide support for our research programs. We also evaluate opportunities for acquiring products or rights to products and technologies that are complementary to our business from other companies and medical research institutions.

Below is a brief description of our significant business relationships and collaborations and related license agreements that expand our pipeline and provide us with certain rights to existing and potential new products and technologies.

Novartis

In November 2009, we entered into a Collaboration and License Agreement with Novartis. Under the terms of the agreement, Novartis received exclusive development and commercialization rights outside of the United States to ruxolitinib and certain back-up compounds for hematologic and oncology indications, including all hematological malignancies, solid tumors and myeloproliferative diseases. We retained exclusive development and commercialization rights to JAKAFI (ruxolitinib) in the United States and in certain other indications. Novartis also received worldwide exclusive development and commercialization rights to our MET inhibitor compound capmatinib and certain back-up compounds in all indications. We retained options to co-develop and to co-promote capmatinib in the United States.

Under this agreement, we received an upfront payment and immediate milestone payment totaling $210.0 million and were initially eligible to receive additional payments of up to approximately $1.2 billion if defined development and commercialization milestones are achieved. We are also eligible to receive tiered, double-digit royalties ranging from the upper-teens to the mid-twenties percent on future ruxolitinib net sales outside of the United States, and tiered, worldwide royalties on future capmatinib net sales that range from 12% to 14%. In addition, Novartis has received reimbursement and pricing approval for ruxolitinib in a specified number of countries, and we are now obligated to pay to Novartis tiered royalties in the low single-digits on future ruxolitinib net sales within the United States. Each company is responsible for costs relating to the development and commercialization of ruxolitinib in its respective territories, with costs of collaborative studies shared equally. Novartis is also responsible for all costs relating to the development and commercialization of capmatinib.

In April 2016, we amended this agreement to provide that Novartis has exclusive research, development and commercialization rights outside of the United States to ruxolitinib (excluding topical formulations) in the GVHD field. Under this amendment, we received a $5.0 million payment in exchange for the development and commercialization rights to ruxolitinib in GVHD outside of the United States and became eligible to receive up to $75.0 million of additional potential development and regulatory milestones relating to GVHD. In March 2017, we recognized a $25.0 million milestone for the first patient first visit in a GVHD study and in December 2017, we recognized a $40.0 million milestone for Novartis achieving annual net sales of a JAK licensed product of $600.0 million. In December 2018, we recognized a $60.0 million milestone for Novartis achieving annual net sales of a JAK licensed product of $900.0 million.

The Novartis agreement will continue on a program-by-program basis until Novartis has no royalty payment obligations with respect to such program or, if earlier, the termination of the agreement or any program in accordance with the terms of the agreement. Royalties are payable by Novartis on a product-by-product and country-by-country basis until the latest to occur of (i) the expiration of the last valid claim of the licensed patent rights covering the licensed product in the relevant country, (ii) the expiration of regulatory exclusivity for the licensed product in such country and (iii) a specified period from first commercial sale in such country of the licensed product by Novartis or its affiliates or sublicensees. The agreement may be terminated in its entirety or on a program-by-program basis by Novartis for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach.

Lilly

In December 2009, we entered into a License, Development and Commercialization Agreement with Lilly. Under the terms of the agreement, Lilly received exclusive worldwide development and commercialization rights to baricitinib and certain back-up compounds for inflammatory and autoimmune diseases. We received an initial payment of $90.0 million, and were initially eligible to receive additional payments of up to $665.0 million based on the achievement of defined development, regulatory and commercialization milestones.

We retained options to co-develop our JAK1/JAK2 inhibitors with Lilly on a compound-by-compound and indication-by-indication basis. Lilly is responsible for all costs relating to the development and commercialization of the compounds unless we elect to co-develop any compounds or indications. If we elect to co-develop any compounds and/or indications, we would be responsible for funding 30% of the associated future global development costs from the initiation of a Phase IIb trial through regulatory approval, including post-launch studies required by a regulatory authority. We would receive an incremental royalty rate increase across all tiers resulting in effective royalty rates ranging up to the high twenties on potential future global net sales for compounds and/or indications that we elect to co-develop. For indications that we elect not to co-develop, we would receive tiered, double-digit royalty payments on future global net sales with rates ranging up to 20% if the product is successfully commercialized. If we have started co-development funding for any indication, we can at any time opt out and stop future co-development cost sharing. If we elect to do this, we would still be eligible for our base royalties plus an incremental pro-rated royalty commensurate with our contribution to the total co-development cost for those indications for which we co-funded. We previously had retained an option to co-promote products in the United States but, in March 2016, we waived our co-promotion option as part of an amendment to the agreement.

In July 2010, we elected to co-develop baricitinib with Lilly in rheumatoid arthritis, and subsequently in several additional indications, and became responsible for funding 30% of the associated global development costs for such indications from the initiation of the Phase IIb trial through regulatory approval, including post-launch studies required by a regulatory authority. In April 2019, we elected to end additional co-funding of the development of baricitinib in all indications, effective as of January 1, 2019. Pursuant to the terms of the Lilly agreement, we will continue to receive base tiered royalties on global net sales of OLUMIANT in all indications, as well as pro-rated incremental royalties, as described above.

In March 2016, we entered into an amendment to the agreement with Lilly that allows us to engage in the development and commercialization of ruxolitinib in the GVHD field. Upon execution of the amendment, we paid Lilly an upfront payment of $35.0 million and Lilly is eligible to receive up to $40.0 million in regulatory milestone payments relating to ruxolitinib in the GVHD field. In May 2019, the approval of JAKAFI in steroid-refractory acute GVHD triggered a $20.0 million milestone payment to Lilly.

In February 2017, the European Commission announced the approval of baricitinib as OLUMIANT, triggering a $65.0 million milestone payment from Lilly. In July 2017, Japan's MHLW granted marketing approval for OLUMIANT, triggering a $15.0 million milestone payment from Lilly. In December 2017, we recognized a $30.0 million milestone payment for the first patient treated in the atopic dermatitis Phase III program for baricitinib. In June 2018, the FDA approved the 2mg dose of OLUMIANT, triggering a $100.0 million milestone payment from Lilly. In September 2018, we recognized a $20.0 million milestone payment for the first patient treated in the systemic lupus erythematosus Phase III program for baricitinib.

The Lilly agreement will continue until Lilly no longer has any royalty payment obligations or, if earlier, the termination of the agreement in accordance with its terms. Royalties are payable by Lilly on a product-by-product and country-by-country basis until the latest to occur of (i) the expiration of the last valid claim of the licensed patent rights covering the licensed product in the relevant country, (ii) the expiration of regulatory exclusivity for the licensed product in such country and (iii) a specified period from first commercial sale in such country of the licensed product by Lilly or its affiliates or sublicensees. The agreement may be terminated by Lilly for convenience, and may also be terminated under certain other circumstances, including material breach.

Agenus

In January 2015, we entered into a License, Development and Commercialization Agreement with Agenus Inc. and its wholly-owned subsidiary, 4-Antibody AG (now known as Agenus Switzerland Inc.), which we collectively refer to as Agenus. Under this agreement, the parties have agreed to collaborate on the discovery of novel immuno-therapeutics using Agenus' antibody discovery platforms. In February 2017, we and Agenus amended this agreement.

Under the terms of this agreement, as amended, we received exclusive worldwide development and commercialization rights to four checkpoint modulators directed against GITR, OX40, LAG-3 and TIM-3. In addition to the initial four program targets, we and Agenus have the option to jointly nominate and pursue additional targets within the framework of the collaboration, and in November 2015, three more targets were added. Targets may be designated profit-share programs, where all costs and profits are shared equally by us and Agenus, or royalty-bearing programs, where we are responsible for all costs associated with discovery, preclinical, clinical development and commercialization activities. The programs relating to GITR and OX40 and two of the undisclosed targets were profit-share programs until February 2017, while the other targets currently under collaboration are royalty-bearing programs. The February 2017 amendment converted the programs relating to GITR and OX40 to royalty-bearing programs and removed from the collaboration the profit-share programs relating to the two undisclosed targets, with one reverting to us and one reverting to Agenus. Should any of those removed programs be successfully developed by a party, the other party will be eligible to receive the same milestone payments as the royalty-bearing programs and royalties at a 15% rate on global net sales. There are currently no profit-share programs. For each royalty-bearing product other than GITR and OX40, Agenus will be eligible to receive tiered royalties on global net sales ranging from 6% to 12%. For GITR and OX40, Agenus will be eligible to receive 15% royalties on global net sales. Under the February 2017 amendment, we paid Agenus $20.0 million in accelerated milestones relating to the clinical development of the GITR and OX40 programs. Agenus is eligible to receive up to an additional $510.0 million in future contingent development, regulatory and commercialization milestones across all programs in the collaboration. The agreement may be terminated by us for convenience upon 12 months' notice and may also be terminated under certain other circumstances, including material breach.

Takeda (ARIAD)

In June 2016, we acquired from ARIAD Pharmaceuticals, Inc. all of the outstanding shares of ARIAD Pharmaceuticals (Luxembourg) S.à.r.l., the parent company of ARIAD's European subsidiaries responsible for the development and commercialization of ICLUSIG in the European Union and other countries. We obtained an exclusive license to develop and commercialize ICLUSIG in Europe and other select countries. ARIAD was subsequently acquired by Takeda Pharmaceutical Company Limited in 2017. As such, Takeda will be eligible to receive from us tiered royalties on net sales of ICLUSIG in our territory and up to $135.0 million in potential future oncology development and regulatory approval milestone payments, together with additional milestone payments for non-oncology indications, if approved, in our territory.

Merus

In December 2016, we entered into a Collaboration and License Agreement with Merus N.V. Under this agreement, which became effective in January 2017, the parties have agreed to collaborate with respect to the research, discovery and development of bispecific antibodies utilizing Merus' technology platform. The collaboration encompasses up to eleven independent programs.

The most advanced collaboration program is MCLA-145, a bispecific antibody targeting PD-L1 and CD137, for which we received exclusive development and commercialization rights outside of the United States. Merus retained exclusive development and commercialization rights in the United States to MCLA-145. Each party will share equally the costs of mutually agreed global development activities for MCLA-145, and fund itself any independent development activities in its territory. Merus will be responsible for commercializing MCLA-145 in the United States and we will be responsible for commercializing it outside of the United States.

In addition to receiving rights to MCLA-145 outside of the United States, we received worldwide exclusive development and commercialization rights to up to ten additional programs. Of these ten additional programs, Merus retained the option, subject to certain conditions, to co-fund development of up to two such programs. If Merus exercises its co-funding option for a program, Merus would be responsible for funding 35% of the associated future global development costs and, for certain of such programs, would be responsible for reimbursing us for certain development costs incurred prior to the option exercise. Merus will also have the right to participate in a specified proportion of detailing activities in the United States for one of those co-developed programs. All costs related to the co-funded collaboration programs are subject to joint research and development plans and overseen by a joint development committee, but we will have final determination as to such plans in cases of dispute. We will be responsible for all research, development and commercialization costs relating to all other programs.

In February 2017, we paid Merus an upfront non-refundable payment of $120.0 million. For each program as to which Merus does not have commercialization or development co-funding rights, Merus will be eligible to receive up to $100.0 million in future contingent development and regulatory milestones, and up to $250.0 million in commercialization milestones as well as tiered royalties ranging from 6% to 10% of global net sales. For each program as to which Merus exercises its option to co-fund development, Merus will be eligible to receive a 50% share of profits (or sustain 50% of any losses) in the United States and be eligible to receive tiered royalties ranging from 6% to 10% of net sales of products outside of the United States. If Merus opts to cease co-funding a program as to which it exercised its co-development option, then Merus will no longer receive a share of profits in the United States but will be eligible to receive the same milestones from the co-funding termination date and the same tiered royalties described above with respect to programs where Merus does not have a right to co-fund development and, depending on the stage at which Merus chose to cease co-funding development costs, Merus will be eligible to receive additional royalties ranging up to 4% of net sales in the United States. For MCLA-145, we and Merus will each be eligible to receive tiered royalties on net sales in the other party's territory at rates ranging from 6% to 10%.

The Merus agreement will continue on a program-by-program basis until we have no royalty payment obligations with respect to such program or, if earlier, the termination of the agreement or any program in accordance with the terms of the agreement. The agreement may be terminated in its entirety or on a program-by-program basis by us for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach, as set forth in the agreement. If the agreement is terminated with respect to one or more programs, all rights in the terminated programs revert to Merus, subject to payment to us of a reverse royalty of up to 4% on sales of future products, if Merus elects to pursue development and commercialization of products arising from the terminated programs.

Calithera

In January 2017, we entered into a Collaboration and License Agreement with Calithera Biosciences, Inc. Under this agreement, we received an exclusive, worldwide license to develop and commercialize small molecule arginase inhibitors, including INCB01158 (CB-1158), which is currently in Phase I clinical trials, for hematology and oncology indications. We have agreed to co-fund 70% of the global development costs for the development of the licensed products for hematology and oncology indications. Calithera will have the right to conduct certain clinical development under the collaboration, including combination studies of a licensed product with a proprietary compound of Calithera. We will be entitled to 60% of the profits and losses from net sales of licensed product in the United States, and Calithera will have the right to co-detail licensed products in the United States, and we have agreed to pay Calithera tiered royalties ranging from the low to mid-double digits on net sales of licensed products outside the United States. Calithera may opt out of its co-funding obligation, in which case the U.S. profit sharing will no longer be in effect, and we have agreed to pay Calithera tiered royalties ranging from the low to mid-double digits on net sales of licensed products both in the United States and outside the United States, and additional royalties to reimburse Calithera for previously incurred development costs.

Calithera retains rights to certain arginase inhibitors that are not part of the collaboration for specific orphan indications outside of hematology and oncology, subject to our rights to negotiate a license for any such programs under specified circumstances if Calithera elects to out-license them.

In January 2017, we paid Calithera an upfront license fee of $45.0 million and have agreed to pay potential development, regulatory and sales milestone payments of over $430.0 million if the profit share is in effect, or $750.0 million if the profit share terminates.

The Calithera agreement will continue on a product-by-product and country-by-country basis for so long as we are developing or commercializing products in the United States (if the parties are sharing profits in the United States) and until we have no further royalty payment obligations, unless earlier terminated according to the terms of the agreement. The agreement may be terminated in its entirety or on a product-by-product and/or a country-by-country basis by us for convenience. The agreement may also be terminated by us for Calithera's uncured material breach, by Calithera for our uncured material breach and by either party for bankruptcy or patent challenge. If the agreement is terminated early with respect to one or more products or countries, all rights in the terminated products and countries revert to Calithera.

MacroGenics

In October 2017, we entered into a Global Collaboration and License Agreement with MacroGenics. Under this agreement, we received exclusive development and commercialization rights worldwide to MacroGenics' INCMGA0012, an investigational monoclonal antibody that inhibits PD-1. Except as set forth in the succeeding sentence, we will have sole authority over and bear all costs and expenses in connection with the development and commercialization of INCMGA0012 in all indications, whether as a monotherapy or as part of a combination regimen. MacroGenics has retained the right to develop and commercialize, at its cost and expense, its pipeline assets in combination with INCMGA0012. In addition, MacroGenics has the right to manufacture a portion of both companies' global clinical and commercial supply needs of INCMGA0012. In 2017, we paid MacroGenics an upfront payment of $150.0 million and in 2018, we paid MacroGenics milestones totaling $15.0 million. MacroGenics will be eligible to receive up to an additional $405.0 million in future contingent development and regulatory milestones, and up to $330.0 million in commercial milestones as well as tiered royalties ranging from 15% to 24% of global net sales.

The MacroGenics agreement will continue until we are no longer commercializing, developing or manufacturing INCMGA0012 or, if earlier, the termination of the agreement in accordance with its terms. The agreement may be terminated in its entirety or on a licensed product by licensed product basis by us for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach, as set forth in the agreement.

Syros

In January 2018, we entered into a target discovery, research collaboration and option agreement with Syros Pharmaceuticals, Inc. Under this agreement, Syros will use its proprietary gene control platform to identify novel therapeutic targets with a focus in myeloproliferative neoplasms and we have received options to obtain exclusive worldwide rights to intellectual property resulting from the collaboration for up to seven validated targets. We will have exclusive worldwide rights to develop and commercialize any therapies under the collaboration that modulate those validated targets. We paid Syros $2.5 million in cash for access to proprietary technology and $7.5 million in cash for research and development services. We have agreed to pay Syros up to $54.0 million in target selection and option exercise fees should we decide to exercise all of our options under the agreement. For products resulting from the collaboration against each of the seven selected and validated targets, we have agreed to pay up to $50.0 million in potential development and regulatory milestones and up to $65.0 million in potential commercial milestones. Syros is also eligible to receive low single-digit royalties on net sales of products resulting from the collaboration.

Innovent

In December 2018, we entered into a research collaboration and licensing agreement with Innovent Biologics, Inc. Under the terms of this agreement, Innovent received exclusive development and commercialization rights to our

clinical-stage product candidates pemigatinib, itacitinib and parsaclisib in hematology and oncology in mainland China, Hong Kong, Macau and Taiwan. In January 2019, we recognized an upfront payment under this agreement of $40.0 million upon our transfer of the intellectual property related to the clinical-stage product candidates to Innovent. In addition, we are eligible to receive $20.0 million in connection with the first related IND filing in China, up to $129.0 million in potential development and regulatory milestones, and up to $202.5 million in potential commercial milestones. We are also eligible to receive tiered royalties from the high-teens to the low-twenties on future sales of products resulting from the collaboration. We retain an option to assist in the promotion of the three product candidates in the Innovent territories. In June 2019, we recognized the $20.0 million milestone for the first related IND filing in China.

Zai Lab

In July 2019, we entered into a collaboration and license agreement with a subsidiary of Zai Lab Limited. Under the terms of this agreement, Zai Lab received development and exclusive commercialization rights to INCMGA0012 in hematology and oncology in mainland China, Hong Kong, Macau and Taiwan. We recognized an upfront payment under this agreement of $17.5 million in August 2019 upon our transfer of technology related to the licensed product candidate to Zai Lab, and are eligible to receive an additional $60.0 million in potential development, regulatory and commercial milestones, as well as tiered royalties from the low to mid-twenties. We also retain an option to assist in the promotion of INCMGA0012 in Zai Lab's licensed territories.

MorphoSys

In January 2020, we entered into a Collaboration and License Agreement with MorphoSys AG and MorphoSys US Inc., a wholly-owned subsidiary of MorphoSys AG, covering the worldwide development and commercialization of MOR208 (tafasitamab), an investigational Fc engineered monoclonal antibody directed against the target molecule CD19 that is currently in clinical development by MorphoSys. MorphoSys has exclusive worldwide development and commercialization rights to tafasitamab under a June 2010 collaboration and license agreement with Xencor, Inc. In December 2019, MorphoSys submitted a Biologics License Application to the FDA for tafasitamab for the treatment of relapsed or refractory diffuse large B cell lymphoma.

Under the terms of the agreement, we will receive exclusive commercialization rights outside of the United States, and MorphoSys and we will have co-commercialization rights in the United States, with respect to tafasitamab. MorphoSys will be responsible for leading the commercialization strategy and booking all revenue from sales of tafasitamab in the United States, and we and MorphoSys will both be responsible for commercialization efforts in the United States and will share equally the profits and losses from the co-commercialization efforts. We will lead the commercialization strategy outside of the United States, and will be responsible for commercialization efforts and book all revenue from sales of tafasitamab outside of the United States, subject to our royalty payment obligations set forth below. We and MorphoSys have agreed to co-develop tafasitamab and to share development costs associated with global and U.S.-specific clinical trials, with Incyte responsible for 55% of such costs and MorphoSys responsible for 45% of such costs. Each company will be responsible for funding any independent development activities, and we will be responsible for funding development activities specific to our territory. All development costs related to the collaboration will be subject to a joint development plan.

We have agreed to pay MorphoSys an upfront non-refundable payment of $750.0 million. MorphoSys will be eligible to receive up to $740.0 million in future contingent development and regulatory milestones and up to $315.0 million in commercialization milestones as well as tiered royalties ranging from the mid-teens to mid-twenties of net sales outside of the United States. MorphoSys' right to receive royalties in any particular country will expire upon the last to occur of (a) the expiration of patent rights in that particular country, (b) a specified period of time after the first post-marketing authorization sale of a licensed product comprising tafasitamab in that country, and (c) the expiration of any regulatory exclusivity for that licensed product in that country.

The effectiveness of the agreement is conditioned on the early termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 as well as clearance by the German and Austrian antitrust authorities.

Incyte's Approach to Drug Discovery and Development

Our productivity in drug discovery is primarily a result of our core competency in medicinal chemistry which is tightly integrated with, and supported by, an experienced team of biologists and pharmaceutical scientists with expertise in multiple therapeutic areas. This discovery team operates in concert with an equally experienced drug development organization with expertise in clinical sciences, statistics, and regulatory affairs. Our drug development organization manages our clinical programs and utilizes clinical research organizations (CROs), expert scientific advisory boards, and leading consultants and suppliers as appropriate to ensure our clinical trials are conducted efficiently, effectively, and in accordance with regulatory and compliance guidelines.

To succeed in our objective to discover and advance novel therapeutics that address serious unmet medical needs, we have established a broad range of discovery capabilities in-house, including target validation, high-throughput screening, medicinal chemistry, computational chemistry, and pharmacological and ADME (absorption, distribution, metabolism and excretion) assessment. We augment these capabilities through collaborations with academic and contract laboratory resources with relevant expertise.

In addition to our small molecule expertise, we have added biotherapeutic antibody discovery capabilities. The collaboration with Agenus has provided us with access to their antibody discovery platform and provided us with both clinical antibodies and pre-clinical candidates. Recently, we have expanded our discovery reach to include bispecific antibodies through a collaboration with Merus. We are complementing these collaborations by building in-house antibody discovery, pharmacology, ADME and CMC capabilities and will partner these efforts with our small molecule portfolio.

Driven by a target- and pathway-centric discovery process, our pipeline has grown and is currently focused primarily in the area of oncology. We conduct a limited number of discovery programs in parallel at any one time. This focus allows us to allocate resources to our selected programs at a level that we believe is competitive with larger pharmaceutical companies. We continually modify the resourcing of our discovery efforts with the goals of maximizing information content when and where we need it and ensuring that each program, regardless of stage, is executed in the most efficient and data-rich manner possible. We believe this approach has played a critical role in the development of our product portfolio.

Once our compounds reach clinical development, our objective is to rapidly progress the lead candidate into a proof-of-concept clinical trial to quickly assess the therapeutic potential of the clinical candidate itself as well as its underlying mechanism of action. This information is then used to evaluate the compound's development opportunities, identify the most appropriate indication or indications to pursue, and develop a clinical and regulatory plan to advance the molecule forward.

Our development teams are responsible for ensuring that our clinical candidates are expeditiously progressed through clinical safety, proof-of-concept, and formal efficacy/pivotal trials. Our development teams include employees with expertise in drug development, including clinical trial design, statistics, regulatory affairs, medical affairs, pharmacovigilance and project management. We have also built internal process chemistry and formulation teams that work closely with external GMP contract manufacturers to support our drug development efforts.

Incyte's Commercial Strategy

Our strategy is to develop and commercialize our compounds on our own in selected markets where we believe a company of our size can successfully compete, such as in myelofibrosis, polycythemia vera, GVHD and other oncology indications. In November 2011, we received regulatory approval of JAKAFI (ruxolitinib) in the United States for the treatment of intermediate or high-risk myelofibrosis. Since that time, we have focused on increasing utilization of JAKAFI in this patient population. In December 2014, JAKAFI was approved for the treatment of patients with polycythemia vera who have had an inadequate response to or are intolerant of hydroxyurea. In May 2019, JAKAFI was approved for the treatment of steroid-refractory acute GVHD in adult and pediatric patients 12 years and older. We have expanded the marketing, medical, sales and operational infrastructure to support continued commercialization of JAKAFI in its three indications and to prepare for potential future indications of JAKAFI in the United States. We are expanding marketing,

medical and operational infrastructure outside of the United States and within the United States to prepare for potential approval of other products.

For rights to ruxolitinib outside the United States as well as for pipeline compounds that are outside of our core expertise, would require expensive clinical studies, or could be used in combination with other compounds or biologics, we have established or may in the future establish collaborations or strategic relationships to support development and commercialization, such as our collaborations with Novartis and Lilly for our JAK inhibitors. We believe the key benefits to entering into strategic relationships include the potential to receive upfront payments and future milestones and royalties in exchange for certain rights to our compounds, as well as the potential to expedite the development and commercialization of certain of our compounds.

ICLUSIG is approved in the European Union for the treatment of adult patients with CML who are resistant to dasatinib or nilotinib; who are intolerant to dasatinib or nilotinib and for whom subsequent treatment with imatinib is not clinically appropriate, or who have the T315I mutation. ICLUSIG is also indicated in adult patients with Philadelphia positive AML who are resistant to dasatinib; who are intolerant to dasatinib and for whom subsequent treatment with imatinib is not clinically appropriate, or who have the T315I mutation. We are focused on increasing the utilization of ICLUSIG in this patient population within our territory as appropriate.

Patents and Other Intellectual Property

We regard the protection of patents and other enforceable intellectual property rights that we own or license as critical to our business and competitive position. Accordingly, we rely on patent, trademark, trade secret and copyright law, as well as nondisclosure and other contractual arrangements, to protect our intellectual property. We have established a patent portfolio of patents and patent applications owned or licensed by us that cover aspects of all our drug products and drug candidates. The patents and patent applications relating to our drug products and drug candidates generally include claims directed to the compounds, methods of using the compounds, formulations of the compounds, pharmaceutical salt forms of the compounds, and methods of manufacturing the compounds. Our policy is to pursue patent applications on inventions and discoveries that we believe are commercially important to the development and growth of our business. The following table sets forth the status of the patents and patent applications in the United States, the European Union, and Japan, covering our drug products and drug candidates in key programs that show at least proof of concept in their respective clinical development programs:

Drug/Drug Candidate (Target)	Status of United States Patent Estate (Earliest Anticipated Expirations, Subject to Potential Extensions and Payment of Maintenance Fees)	Status of European Union and Japan Patent Estate (Earliest Anticipated Expirations, Subject to Potential Extensions and Payment of Maintenance Fees)
ruxolitinib (JAK)	Granted and pending (2026)	Granted and pending (2026)
baricitinib (JAK)	Granted and pending (2029)	Granted and pending (2029)
epacadostat (IDO1)	Granted and pending (2029)	Granted and pending (2029)
itacitinib (JAK)	Granted and pending (2031)	Granted and pending (2031)
capmatinib (MET)	Granted and pending (2027)	Granted and pending (2027)
parsaclisib (PI3Kδ)	Granted and pending (2032)	Granted and pending (2032)
pemigatinib (FGFR)	Granted and pending (2033)	Granted and pending (2033)
ponatinib (BCR ABL)		Granted and pending (2026)
INCMGA0012 (PD-1)	Pending (2036)	Pending (2036)

Patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends on the type of patent, the scope of its coverage and the availability of legal remedies in the country. For example, our U.S. patent covering the composition of matter of ruxolitinib has been extended to 2027.

We may seek to license rights relating to technologies, drug candidates or drug products in connection with our drug discovery and development programs and commercialization activities. Under these licenses, such as our licenses

from Agenus, ARIAD/Takeda, Calithera, MacroGenics, MorphoSys, and Merus we may be required to pay up-front fees, license fees, milestone payments and royalties on sales of future products.

Although we believe our rights under patents and patent applications provide a competitive advantage, the patent positions of pharmaceutical and biotechnology companies are highly uncertain and involve complex legal and factual questions. We may not be able to develop patentable products or processes, and may not be able to obtain patents in the United States or elsewhere from pending applications. Even if patent claims are allowed, the claims may not issue, or in the event of issuance, may not be valid or enforceable or may not be sufficient to protect the technology owned by or licensed to us or provide us with a competitive advantage. Any patent or other intellectual property rights that we own or obtain may be circumvented, challenged or invalidated by our competitors. Others may have patents that relate to our business or technology and that may prevent us from marketing our drug candidates unless we are able to obtain a license to those patents. In addition, litigation or other proceedings may be necessary to defend against claims of infringement, to enforce patents, to protect our other intellectual property rights, to determine the scope and validity of the proprietary rights of third parties or to defend ourselves in patent or other intellectual property right suits brought by third parties. We could incur substantial costs in such litigation or other proceedings. An adverse outcome in any such litigation or proceeding could subject us to significant liability.

With respect to proprietary information that is not patentable, and for inventions for which patents are difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. While we require all employees, consultants and potential business partners to enter into confidentiality agreements, we may not be able to adequately protect our trade secrets or other proprietary information. Others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets.

Competition

Our drug discovery, development and commercialization activities face, and will continue to face, intense competition from organizations such as pharmaceutical and biotechnology companies, as well as academic and research institutions and government agencies. We face significant competition from organizations, particularly fully integrated pharmaceutical companies, that are pursuing pharmaceuticals that are competitive with JAKAFI, ICLUSIG and our drug candidates.

Many companies and institutions, either alone or together with their collaborative partners, have substantially greater financial resources, larger drug discovery, development and commercial staffs and significantly greater experience than we do in:

- drug discovery;
- developing products;
- undertaking preclinical testing and clinical trials;
- obtaining FDA and other regulatory approvals of products; and
- manufacturing, marketing, distributing and selling products.

Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA and other regulatory approval or commercializing products that compete with JAKAFI, ICLUSIG or our drug candidates.

In addition, any drug candidate that we successfully develop may compete with existing therapies that have long histories of safe and effective use. Competition may also arise from:

- other drug development technologies and methods of preventing or reducing the incidence of disease;

- new compounds; or
- other classes of therapeutic agents.

We face and will continue to face intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to drug candidates or proprietary technology. These competitors, either alone or with their collaborative partners, may succeed in developing products that are more effective or commercially successful than ours.

Our ability to compete successfully will depend, in part, on our ability to:

- develop proprietary products;
- develop and maintain products that reach the market first, are technologically superior to and/or are of lower cost than other products in the market;
- attract and retain scientific, product development and sales and marketing personnel;
- obtain patent or other proprietary protection for our products and technologies;
- obtain required regulatory approvals; and
- manufacture, market, distribute and sell any products that we develop.

In a number of countries, including in particular, developing countries, government officials and other groups have suggested that pharmaceutical companies should make drugs available at a low cost. In some cases, governmental authorities have indicated that where pharmaceutical companies do not do so, their patents might not be enforceable to prevent generic competition. Some major pharmaceutical companies have greatly reduced prices for their drugs in certain developing countries. If certain countries do not permit enforcement of any of our patents, sales of our products in those countries, and in other countries by importation from low-price countries, could be reduced by generic competition or by parallel importation of our product. Alternatively, governments in those countries could require that we grant compulsory licenses to allow competitors to manufacture and sell their own versions of our products in those countries, thereby reducing our product sales, or we could respond to governmental concerns by reducing prices for our products. In all of these situations, our results of operations could be adversely affected.

Government Regulation

Our ongoing research and development activities and any manufacturing and marketing of our approved drug products and our drug candidates are subject to extensive regulation by numerous governmental authorities in the United States and other countries. Before marketing in the United States, any drug developed by us must undergo rigorous preclinical testing, clinical trials, and an extensive regulatory clearance process implemented by the FDA under the United States Food, Drug and Cosmetic Act and its implementing regulations and, in the case of biologics, the Public Health Service Act. The FDA regulates, among other things, the research, development, testing, manufacture, safety, efficacy, record-keeping, labeling, storage, approval, advertising, promotion, sale and distribution and import and export, of these products.

FDA Review and Approval Process

The regulatory review and approval process is lengthy, expensive and uncertain. The steps generally required before a drug may be marketed in the United States include:

- preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's Good Laboratory Practice and Good Manufacturing Practice regulations;

- submission to the FDA of an Investigational New Drug application (IND) for human clinical testing, which must become effective before human clinical trials may commence;
- performance of adequate and well-controlled clinical trials in three phases, as described below, to establish the safety and efficacy of the drug for each indication;
- submission of an NDA or Biologics License Application (BLA) to the FDA for review;
- random inspections of clinical sites to ensure validity of clinical safety and efficacy data;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current good manufacturing practices;
- FDA approval of the NDA or BLA; and
- payment of user and establishment fees, if applicable.

Similar requirements exist within foreign agencies as well. The time required to satisfy FDA requirements or similar requirements of foreign regulatory agencies may vary substantially based on the type, complexity and novelty of the product or the targeted disease.

Preclinical testing includes laboratory evaluation of product pharmacology, drug metabolism, and toxicity which includes animal studies, to assess potential safety and efficacy as well as product chemistry, stability, formulation, development, and testing. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time, the FDA raises safety concerns or questions about the conduct of the clinical trial(s) included in the IND. In the latter case, the IND sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. We cannot be sure that submission of an IND will result in the FDA allowing clinical trials to commence.

Clinical trials involve the administration of the investigational drug to human subjects under the supervision of qualified investigators and in accordance with good clinical practices regulations covering the protection of human subjects. These regulations require all research subjects to provide informed consent. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND and each trial must be reviewed and approved by an institutional review board (IRB) before it can begin.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Phase I usually involves the initial introduction of the investigational drug into healthy volunteers to evaluate its safety, dosage tolerance, absorption, metabolism, distribution and excretion. Phase II usually involves clinical trials in a limited patient population to evaluate dosage tolerance and optimal dosage, identify possible adverse effects and safety risks, and evaluate and gain preliminary evidence of the efficacy of the drug for specific indications. Phase III clinical trials usually further evaluate clinical efficacy and safety by testing the drug in its final form in an expanded patient population, providing statistical evidence of efficacy and safety, and providing an adequate basis for labeling. We cannot guarantee that Phase I, Phase II or Phase III testing will be completed successfully within any specified period of time, if at all. Furthermore, we, the IRB, or the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

As a separate amendment to an IND, a clinical trial sponsor may submit to the FDA a request for a Special Protocol Assessment (SPA). Under the SPA procedure, a sponsor may seek the FDA's agreement on the design and size of a clinical trial intended to form the primary basis of an effectiveness claim. If the FDA agrees in writing, its agreement may not be changed after the trial begins, except when agreed by FDA or in limited circumstances, such as when a substantial scientific issue essential to determining the safety and effectiveness of a drug candidate is identified after a

Phase III clinical trial is commenced and agreement is obtained with the FDA. If the outcome of the trial is successful, the sponsor will ordinarily be able to rely on it as the primary basis for approval with respect to effectiveness. However, additional trials could also be requested by the FDA to support approval, and the FDA may make an approval decision based on a number of factors, including the degree of clinical benefit as well as safety. The FDA is not obligated to approve an NDA or BLA as a result of an SPA agreement, even if the clinical outcome is positive.

Even after initial FDA approval has been obtained, post-approval trials, or Phase IV studies, may be required to provide additional data, and will be required to obtain approval for the sale of a product as a treatment for a clinical indication other than that for which the product was initially tested and approved. Also, the FDA will require post-approval safety reporting to monitor the side effects of the drug. Results of post-approval programs may limit or expand the indication or indications for which the drug product may be marketed. Further, if there are any requests for modifications to the initial FDA approval for the drug, including changes in indication, manufacturing process, manufacturing facilities, or labeling, a supplemental NDA or BLA may be required to be submitted to the FDA.

The length of time and related costs necessary to complete clinical trials varies significantly and may be difficult to predict. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Additional factors that can cause delay or termination of our clinical trials, or cause the costs of these clinical trials to increase, include:

- slow patient enrollment due to the nature of the protocol, the proximity of patients to clinical sites, the eligibility criteria for the study, competition with clinical trials for other drug candidates or other factors;
- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials;
- delays in approvals from a study site's IRB;
- longer than anticipated treatment time required to demonstrate effectiveness or determine the appropriate product dose;
- lack of sufficient supplies of the drug candidate for use in clinical trials;
- adverse medical events or side effects in treated patients; and
- lack of effectiveness of the drug candidate being tested.

Any drug is likely to produce some toxicities or undesirable side effects in animals and in humans when administered at sufficiently high doses and/or for sufficiently long periods of time. Unacceptable toxicities or side effects may occur at any dose level, and at any time in the course of animal studies designed to identify unacceptable effects of a drug candidate, known as toxicological studies, or in clinical trials of our drug candidates. The appearance of any unacceptable toxicity or side effect could cause us or regulatory authorities to interrupt, limit, delay or abort the development of any of our drug candidates, and could ultimately prevent their marketing approval by the FDA or foreign regulatory authorities for any or all targeted indications.

The FDA's fast track, breakthrough therapy, accelerated approval, and priority review designation programs are intended to facilitate the development and expedite the review and approval of drug candidates intended for the treatment of serious or life-threatening conditions and that demonstrate the potential to address unmet medical needs for these conditions. Under these programs, FDA can, for example, review portions of an NDA or BLA for a drug candidate before the entire application is complete, thus potentially beginning the review process at an earlier time.

We cannot guarantee that the FDA will grant any of our requests for any of these expedited program designations, that any such designations would affect the time of review or that the FDA will approve the NDA or BLA submitted for any of our drug candidates, whether or not these designations are granted. Additionally, FDA approval of a product can

include restrictions on the product's use or distribution (such as permitting use only for specified medical conditions or limiting distribution to physicians or facilities with special training or experience). Approval of such designated products can be conditioned on additional clinical trials after approval.

Sponsors submit the results of preclinical studies and clinical trials to the FDA as part of an NDA or BLA. NDAs and BLAs must also contain extensive product manufacturing information and proposed labeling. Upon receipt, the FDA initially reviews the NDA or BLA to determine whether it is sufficiently complete to initiate a substantive review. If the FDA identifies deficiencies that would preclude substantive review, the FDA will refuse to accept the NDA or BLA and will inform the sponsor of the deficiencies that must be corrected prior to resubmission. If the FDA accepts the submission for review (then deemed a "filing"), the FDA typically completes the NDA or BLA review within a pre-determined time frame. Under the Prescription Drug User Fee Act, the FDA agrees to review NDAs and BLAs under either a standard review or priority review. FDA procedures provide for priority review of NDAs and BLAs submitted for drugs that, compared to currently marketed products, if any, offer a significant improvement in the treatment, diagnosis or prevention of a disease. The FDA seeks to review NDAs and BLAs that are granted priority status more quickly than NDAs and BLAs given standard review status. The FDA's stated policy is to act on 90% of priority NDAs and BLAs within eight months of receipt (or six months after filing, which occurs within 60 days after NDA or BLA submission). Although the FDA historically has not met these goals, the agency has made significant improvements in the timeliness of the review process. NDA and BLA review often extends beyond anticipated completion dates due to FDA requests for additional data or clarification, the FDA's decision to have an advisory committee review, and difficulties in scheduling an advisory committee meeting. The recommendations of an advisory committee are not binding on the FDA.

To obtain FDA approval to market a product, we must demonstrate that the product is safe and effective for the patient population that will be treated. If regulatory approval of a product is granted, the approval will be limited to those disease states and conditions for which the product is safe and effective, as demonstrated through clinical trials. Marketing or promoting a drug for an unapproved indication is prohibited. Furthermore, approval may entail requirements for post-marketing studies or risk evaluation and mitigation strategies, including the need for patient and/or physician education, patient registries, medication or similar guides, or other restrictions on the distribution of the product. If an NDA or BLA does not satisfy applicable regulatory criteria, the FDA may deny approval of an NDA or BLA or may issue a complete response, and require, among other things, additional clinical data or analyses.

The Orphan Drug Act provides incentives to manufacturers to develop and market drugs for rare diseases and conditions affecting fewer than 200,000 persons in the United States at the time of application for orphan drug designation. The first developer to receive FDA marketing approval for an orphan drug is entitled to a seven year exclusive marketing period in the United States for the orphan drug indication. However, a drug that the FDA considers to be clinically superior to, or different from, another approved orphan drug, even though for the same indication, may also obtain approval in the United States during the seven year exclusive marketing period.

Regulation of Manufacturing Process

Even when NDA or BLA approval is obtained, a marketed product, such as JAKAFI, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections by the FDA. The manufacturing process for pharmaceutical products is highly regulated and regulators may shut down manufacturing facilities that they believe do not comply with regulations. Discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on the product, manufacturer or facility, including costly recalls or withdrawal of the product from the market. Manufacturing facilities are always subject to inspection by the applicable regulatory authorities.

We and our third-party manufacturers are subject to current Good Manufacturing Practices, which are extensive regulations governing manufacturing processes, including but not limited to stability testing, record keeping and quality standards as defined by the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use, or ICH, FDA and the European Medicines Agency. Similar regulations are in effect in other countries. Manufacturing facilities are subject to inspection by the applicable regulatory authorities and are subject to manufacturing licenses where applicable. These facilities, whether our own or our contract manufacturers, must be inspected before we can use them in commercial manufacturing of our related products. We or our contract manufacturers may not be able to comply with applicable Good Manufacturing Practices and FDA or other regulatory requirements. If we or our contract

manufacturers fail to comply, we or our contract manufacturers may be subject to legal or regulatory action, such as suspension of manufacturing license, seizure of product, or voluntary recall of product. Furthermore, continued compliance with applicable Good Manufacturing Practices will require continual expenditure of time, money and effort on the part of us or our contract manufacturers in the areas of production and quality control and record keeping and reporting, in order to ensure full compliance.

Post-Approval Regulation

Any products manufactured or distributed by us pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including record-keeping requirements, reporting of adverse experiences with the drug and other reporting, advertising and promotion restrictions. The FDA's rules for advertising and promotion require, among other things, that our promotion be fairly balanced and adequately substantiated by clinical studies, and that we not promote our products for unapproved uses. We must also submit appropriate new and supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. On its own initiative, the FDA may require changes to the labeling of an approved drug if it becomes aware of new safety information that the agency believes should be included in the approved drug's labeling. The FDA also enforces the requirements of the Prescription Drug Marketing Act, or PDMA, which, among other things, imposes various requirements in connection with the distribution of product samples to physicians.

In addition to inspections related to manufacturing, we are subject to periodic unannounced inspections by the FDA and other regulatory bodies related to the other regulatory requirements that apply to marketed drugs manufactured or distributed by us. The FDA also may conduct periodic inspections regarding our review and reporting of adverse events, or related to compliance with the requirements of the PDMA concerning the handling of drug samples. When the FDA conducts an inspection, the inspectors will identify any deficiencies they believe exist in the form of a notice of inspectional observations. The observations may be more or less significant. If we receive a notice of inspectional observations, we likely will be required to respond in writing, and may be required to undertake corrective and preventive actions in order to address the FDA's concerns.

There are a variety of state laws and regulations that apply in the states or localities where JAKAFI and our drug candidates are or may be marketed. For example, we must comply with state laws that require the registration of manufacturers and wholesale distributors of pharmaceutical products in that state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Any applicable state or local regulations may hinder our ability to market, or increase the cost of marketing, our products in those states or localities.

The FDA's policies may change and additional government regulations may be enacted which could impose additional burdens or limitations on our ability to market products after approval. Moreover, increased attention to the containment of health care costs in the United States and in foreign markets could result in new government regulations which could have a material adverse effect on our business. We cannot predict the likelihood, nature or extent of adverse governmental regulation which might arise from future legislative or administrative action, either in the United States or abroad.

Marketing Exclusivity

The FDA may grant five years of exclusivity in the United States for the approval of NDAs for new chemical entities, and three years of exclusivity for supplemental NDAs, for among other things, new indications, dosages or dosage forms of an existing drug if new clinical investigations that were conducted or sponsored by the applicant are essential to the approval of the supplemental application. Additionally, six months of marketing exclusivity in the United States is available if, in response to a written request from the FDA, a sponsor submits and the agency accepts requested information relating to the use of the approved drug in the pediatric population. The six month pediatric exclusivity is added to any existing patent or non-patent exclusivity period for which the drug is eligible. Orphan drug products are also eligible for

pediatric exclusivity if the FDA requests and the company completes pediatric clinical trials. Under the Biologics Price Competition and Innovation Act, the FDA may grant 12 years of data exclusivity for innovative biological products.

Foreign Regulation

Outside the United States, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Union (EU) registration procedures are available to companies wishing to market a product in more than one EU member state. If the competent regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization may be granted. This foreign regulatory approval process involves all of the risks associated with FDA approval discussed above and may also include additional risks.

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in non-US countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a process that requires the submission of a clinical trial application, or CTA, much like an IND prior to the commencement of human clinical trials. In Europe, a CTA must be submitted to the competent national health authority and to independent ethics committees in each country in which a company plans to conduct clinical trials. Once the CTA is approved in accordance with a country's requirements, clinical trial development may proceed in that country and are conducted in accordance with GCP and other applicable regulatory requirements.

To obtain regulatory approval of an investigational drug under EU regulatory systems, we must submit a marketing authorization application (MAA). This application is similar to the NDA in the United States, with the exception of, among other things, regional and/or country-specific document requirements. Drugs can be authorized in the EU by using (i) the centralized authorization procedure, (ii) the mutual recognition procedure, (iii) the decentralized procedure or (iv) national authorization procedures.

The European Medicines Agency (EMA) implemented the centralized procedure for the approval of human drugs to facilitate marketing authorizations that are valid throughout the EU. This procedure results in a single marketing authorization granted by the European Commission that is valid across the EU. Under the centralized procedure, the maximum timeframe for the evaluation of a marketing authorization application by the EMA is 210 days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the Committee for Medicinal Products for Human Use (CHMP)). A positive opinion on the MAA by the CHMP then needs to be endorsed by the European Commission. Accelerated assessment might be granted by the CHMP in exceptional cases, in which case the EMA ensures that the evaluation for the opinion of the CHMP is completed within 150 days (excluding clock stops) and the opinion issued thereafter.

The mutual recognition procedure (MRP) for the approval of human drugs is an alternative approach to facilitate individual national marketing authorizations within the EU. The MRP may be applied for all human drugs for which the centralized procedure is not obligatory. The MRP is based on the principle of the mutual recognition by EU member states of their respective national marketing authorizations. Based on a marketing authorization in the reference member state, the applicant may apply for marketing authorizations in other member states. In such case, the reference member state shall update its existing assessment report about the drug. After the assessment is completed, copies of the report are sent to all member states, together with the approved summary of product characteristics, labeling and package leaflet. The concerned member states then recognize the decision of the reference member state and the summary of product characteristics, labeling and package leaflet. National marketing authorizations shall be granted within 30 days after acknowledgement of the agreement.

Should any Member State refuse to recognize the marketing authorization by the reference member state, the member states shall make all efforts to reach a consensus. If this fails, the procedure is submitted to an EMA scientific committee for arbitration. The opinion of this EMA Committee is then forwarded to the Commission, for the start of the decision making process. As in the centralized procedure, this process entails consulting various European Commission

Directorates General and the Standing Committee on Human Medicinal Products or Veterinary Medicinal Products, as appropriate.

Legislation similar to the Orphan Drug Act has been enacted in other countries outside of the United States, including the EU. The orphan legislation in the EU is available for therapies addressing conditions that affect five or fewer out of 10,000 persons, are life-threatening or chronically debilitating conditions and for which no satisfactory treatment is authorized. The market exclusivity period is for ten years, although that period can be reduced to six years if, at the end of the fifth year, available evidence establishes that the product does not justify maintenance of market exclusivity.

For other countries outside of the EU, such as non-EU countries in Eastern Europe, Middle-East, Latin America, Japan or other countries in Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary. In all cases, again, the clinical trials are conducted in accordance with GCP and the other applicable regulatory requirements.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension of clinical trials, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Manufacturing

Our manufacturing strategy is to contract with third parties to manufacture the raw materials, our active pharmaceutical ingredients, or API, and finished dosage form for clinical and commercial uses. We currently do not operate manufacturing facilities for clinical or commercial production of JAKAFI, ICLUSIG, or our drug candidates. In addition, we expect for the foreseeable future to continue to rely on third parties for the manufacture of commercial supplies of the raw materials, API and finished drug product for any drugs that we successfully develop and are approved for commercial sale. In this manner, we continue to build and maintain our supply chain and quality assurance resources.

Manufacturing of our Products

Our supply chain for manufacturing raw materials, API and drug product ready for distribution and commercialization is a multi-step international process. Establishing and managing the supply chain requires a significant financial commitment and the creation and maintenance of numerous third-party contractual relationships.

We contract with third parties to manufacture JAKAFI, ICLUSIG, and our drug candidates for clinical and commercial purposes. Third-party manufacturers supply raw materials, and other third-party manufacturers convert these raw materials into API or convert the API into final dosage form. For most of our drug candidates, once our raw materials are produced, we rely on one third-party to manufacture the API, another to make finished drug product and a third to package and label the finished product. For ruxolitinib phosphate, the API for JAKAFI, we have two qualified third-party contract manufacturers from which we can source drug substance. The manufacturing of Ponatinib, the API for ICLUSIG, is the sole responsibility of Takeda, the intellectual property holder. We procure API from Takeda, which outsources the API manufacturing to a third party.

We also rely on third-party contract manufacturers to tablet or capsulate all of our active pharmaceutical ingredients for clinical and commercial uses. For JAKAFI, we have two qualified third-party manufacturers from which we can source commercial drug product. For ICLUSIG we have two qualified third-party manufacturers from which we can source commercial drug product. Secondary packaging of ICLUSIG is performed by a qualified third-party manufacturer. Primary packaged product for ICLUSIG can be used for clinical and commercial purposes.

We may not be able to obtain sufficient quantities of any of our raw materials, drug candidates, API, or finished goods if our designated manufacturers do not have the capacity or capability to manufacture our products according to our schedule and specifications. If any of these single source suppliers were to become unable or unwilling to supply us with API or finished product that complies with applicable regulatory requirements, we could incur significant delays in our clinical trials or interruption of commercial supply which could have a material adverse effect on our business.

We have established a quality assurance program intended to ensure that our third-party manufacturers and service providers produce materials and provide services, as applicable, in accordance with the FDA and EMA's current Good Manufacturing Practices and other applicable regulations. Our quality assurance program extends to our licensed facilities that oversee the manufacturing and distribution activities.

For our future products, we intend to continue to establish third-party suppliers to manufacture sufficient quantities of our drug candidates to undertake clinical trials and to manufacture sufficient quantities of any product that is approved for commercial sale. If we are unable to contract for large scale manufacturing with third parties on acceptable terms for our future products or develop manufacturing capabilities internally, our ability to conduct large scale clinical trials and meet customer demand for commercial products will be adversely affected.

In July 2018, we purchased land located in Yverdon, Switzerland for construction of a large molecule production facility to manufacture biologic drug substances for our drug candidates. Construction activity commenced in July 2018 and is expected to be completed in the second half of 2020.

Third-party Manufacturers

Our third-party manufacturers are independent entities, under contract with us, who are subject to their own unique operational and financial risks which are out of our control. If we or any of our third-party manufacturers fail to perform as required, this could impair our ability to deliver our products on a timely basis or cause delays in our clinical trials and applications for regulatory approval. To the extent these risks materialize and affect their performance obligations to us, our financial results may be adversely affected.

For products manufactured by our third-party manufacturers, we have licensed the necessary aspects of this manufacturing technology that we believe is proprietary to us to enable them to manufacture the products for us. We have agreements with these third-party manufacturers that are intended to restrict these manufacturers from using or revealing our technology, but we cannot be certain that these third-party manufacturers will comply with these restrictions.

While we believe there are multiple third parties capable of providing most of the materials and services we need in order to manufacture API and distribute finished goods, and that supply of materials that cannot be second sourced can be managed with inventory planning, there is always a risk that we may underestimate demand, and that our manufacturing capacity through third-party manufacturers may not be sufficient. In addition, because of the significant lead times involved in our supply chain for ruxolitinib phosphate, we may have less flexibility to adjust our supply in response to changes in demand than if we had shorter lead times. Our strategy is to maintain 24 months of safety stock of API to be able to respond to changes in demand to provide on-time supply of drug product as well as at least 6 months of semi-finished goods inventory.

Access to Supplies and Materials

Our third-party manufacturers need access to certain supplies and products to manufacture JAKAFI, ICLUSIG, and our drug candidates. If delivery of material from their suppliers were interrupted for any reason or if they are unable to purchase sufficient quantities of raw materials used to manufacture JAKAFI, ICLUSIG, and our drug candidates, they may be unable to ship JAKAFI and ICLUSIG for commercial supply or to supply our drug candidates in development for clinical trials. For example, currently raw materials used to manufacture ruxolitinib phosphate, the API in JAKAFI, are supplied by Chinese-based companies. As a result, an international trade dispute between China and the United States or any other actions by the Chinese government that would limit or prevent Chinese companies from supplying these materials would adversely affect our ability to manufacture and supply our products to meet market needs and have a material and adverse effect on our operating results.

Human Resources

As of December 31, 2019, we had 1,456 employees, including 815 in research and development, 122 in medical affairs, 301 in sales and marketing and 218 in operations support, finance and administrative positions. Geographically, 1,156 employees were based in the United States and 300 employees were based in Europe and Japan. None of our

employees are covered by collective bargaining agreements, and management considers relations with our employees to be good.

Available Information

We were incorporated in Delaware in 1991 and our website is located at *www.incyte.com*. We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after we electronically file or furnish such materials to the Securities and Exchange Commission. Our website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

Item 1A. ***Risk Factors***

RISKS RELATING TO COMMERCIALIZATION OF OUR PRODUCTS

We depend heavily on our lead product, JAKAFI (ruxolitinib), which is marketed as JAKAVI outside the United States. If we are unable to successfully commercialize JAKAFI in its approved indications or to successfully obtain regulatory approval for and commercialize ruxolitinib for the treatment of additional indications, or if we are significantly delayed or limited in doing so, our business may be materially harmed.

JAKAFI is our first and, currently, only product marketed by us that is approved for sale in the United States. It was approved by the U.S. Food and Drug Administration, or FDA, in November 2011 for the treatment of patients with intermediate or high-risk myelofibrosis, in December 2014 for the treatment of patients with polycythemia vera who have had an inadequate response to or are intolerant of hydroxyurea, which we refer to as uncontrolled polycythemia vera, and in May 2019 for the treatment of steroid-refractory acute graft-versus-host disease in adult and pediatric patients 12 years and older. Although we have received regulatory approval for these indications, such approval does not guarantee future revenues. While in June 2016 we acquired exclusive rights to develop and commercialize ICLUSIG in the European Union, or EU, and other countries and in June 2018 the FDA approved for sale OLUMIANT (baricitinib), which we exclusively licensed to Eli Lilly and Company, for the treatment of specified rheumatoid arthritis indications, we anticipate that JAKAFI product sales will continue to contribute a significant percentage of our total revenues over the next several years.

The commercial success of JAKAFI and our ability to generate and maintain revenues from the sale of JAKAFI will depend on a number of factors, including:

- the number of patients with intermediate or high-risk myelofibrosis, uncontrolled polycythemia vera or steroid-refractory acute graft-versus-host disease who are diagnosed with the diseases and the number of such patients that may be treated with JAKAFI;
- the acceptance of JAKAFI by patients and the healthcare community;
- whether physicians, patients and healthcare payors view JAKAFI as therapeutically effective and safe relative to cost and any alternative therapies;
- the ability to obtain and maintain sufficient coverage or reimbursement by third-party payors and pricing;
- the ability of our third-party manufacturers to manufacture JAKAFI in sufficient quantities that meet all applicable quality standards;
- the ability of our company and our third-party providers to provide marketing and distribution support for JAKAFI;
- the label and promotional claims allowed by the FDA;

- the maintenance of regulatory approval for the approved indications in the United States; and
- our ability to develop, obtain regulatory approval for and commercialize ruxolitinib in the United States for additional indications.

If we are not able to maintain revenues from JAKAFI in the United States, or our revenues from JAKAFI decrease, our business may be materially harmed and we may need to delay other drug discovery, development and commercialization initiatives or even significantly curtail operations, and our ability to license or acquire new products to diversify our revenue base could be limited.

In addition, our receipt of royalties under our collaboration agreements with Novartis for sales of JAKAVI outside the United States and with Lilly for worldwide sales of OLUMIANT will depend on factors similar to those listed above, with similar regulatory, pricing and reimbursement issues driven by applicable regulatory authorities and governmental and third-party payors affecting jurisdictions outside the United States.

If we are unable to obtain, or maintain at anticipated levels, reimbursement for our products from government health administration authorities, private health insurers and other organizations, our pricing may be affected or our product sales, results of operations or financial condition could be harmed.

We may not be able to sell our products on a profitable basis or our profitability may be reduced if we are required to sell our products at lower than anticipated prices or reimbursement is unavailable or limited in scope or amount. The costs of JAKAFI and ICLUSIG are not insignificant and almost all patients will require some form of third-party coverage to afford their cost. Our future revenues and profitability will be adversely affected if we cannot depend on government and other third-party payors to defray the cost of our products to the patient. Reimbursement systems in international markets vary significantly by country and by region, and reimbursement approvals must be obtained on a country-by-country basis. Reimbursement in the EU must be negotiated on a country-by-country basis and in many countries the product cannot be commercially launched until reimbursement is approved. The timing to complete the negotiation process in each country is highly uncertain, and in some countries, we expect that it may exceed 12 months. Risks related to pricing and reimbursement are described below under "—Other Risks Relating to our Business—Health care reform measures could impact the pricing and profitability of pharmaceuticals, and adversely affect the commercial viability of our or our collaborators' products and drug candidates. Our ability to generate revenues will be diminished if we or our collaborators are unable to obtain an adequate level of reimbursement from private insurers, government insurance programs or other third party payors of health care costs, which could be affected by current and potential healthcare reform legislation, and diminished revenues will harm our operating results and financial condition and could adversely affect our ability to conduct our research and development operations." If government and other third-party payors refuse to provide coverage and reimbursement with respect to our products, determine to provide a lower level of coverage and reimbursement than anticipated, or reduce previously approved levels of coverage and reimbursement, then our pricing or reimbursement for our products may be affected and our product sales, results of operations or financial condition could be harmed.

We depend upon a limited number of specialty pharmacies and wholesalers for a significant portion of any revenues from JAKAFI, and the loss of, or significant reduction in sales to, any one of these specialty pharmacies or wholesalers could adversely affect our operations and financial condition.

We sell JAKAFI primarily to specialty pharmacies and wholesalers. Specialty pharmacies dispense JAKAFI to patients in fulfillment of prescriptions and wholesalers sell JAKAFI to hospitals and physician offices. We do not promote JAKAFI to specialty pharmacies or wholesalers, and they do not set or determine demand for JAKAFI. Our ability to successfully commercialize JAKAFI will depend, in part, on the extent to which we are able to provide adequate distribution of JAKAFI to patients. Although we have contracted with a number of specialty pharmacies and wholesalers, they are expected generally to carry a very limited inventory and may be reluctant to be part of our distribution network in the future if demand for the product does not increase. Further, it is possible that these specialty pharmacies and wholesalers could decide to change their policies or fees, or both, at some time in the future. This could result in their refusal to carry smaller volume products such as JAKAFI, or lower margins or the need to find alternative methods of distributing our product. Although we believe we can find alternative channels to distribute JAKAFI on relatively short notice, our revenue

during that period of time may suffer and we may incur additional costs to replace any such specialty pharmacy or wholesaler. The loss of any large specialty pharmacy or wholesaler as part of our distribution network, a significant reduction in sales we make to specialty pharmacies or wholesalers, or any failure to pay for the products we have shipped to them could materially and adversely affect our results of operations and financial condition.

If we are unable to establish and maintain effective sales, marketing and distribution capabilities, or to enter into agreements with third parties to do so, we will not be able to successfully commercialize our products.

Under our collaboration and license agreement with Novartis, we have retained commercialization rights to JAKAFI in the United States. We have established commercial capabilities in the United States, but cannot guarantee that we will be able to enter into and maintain any marketing, distribution or third-party logistics agreements with third-party providers on acceptable terms, if at all. In connection with our June 2016 acquisition from ARIAD Pharmaceuticals, Inc. we licensed rights to develop and commercialize ICLUSIG in certain countries and we acquired the European sales, marketing and distribution operations of ARIAD. We may not be able to maintain those operations or retain their personnel or distribution arrangements. We may not be able to correctly judge the size and experience of the sales and marketing force and the scale of distribution capabilities necessary to successfully market and sell any new products. Establishing and maintaining sales, marketing and distribution capabilities are expensive and time-consuming. Competition for personnel with experience in sales and marketing can be high. Our expenses associated with building and maintaining the sales force and distribution capabilities may be disproportional compared to the revenues we may be able to generate on sales of our products.

To the extent that we are able to obtain marketing approval for ruxolitinib cream for dermatology indications such as atopic dermatitis and vitiligo, we will have to establish and maintain sales, marketing and distribution capabilities that will generally be separate from our existing capabilities for oncology indications, and we have no prior experience in commercializing products for dermatology indications. Successful commercialization of our drug candidates for dermatology indications, if approved, will require us to establish new physician and payor relationships, reimbursement strategies and governmental interactions. Our inability to commercialize successfully products in indications outside of oncology could harm our business and operating results.

If we fail to comply with applicable laws and regulations, we could lose our approval to market our products or be subject to other governmental enforcement activity.

We cannot guarantee that we will be able to maintain regulatory approval to market our products in the jurisdictions in which they are currently marketed. If we do not maintain our regulatory approval to market our products, in particular JAKAFI, our results of operations will be materially harmed. We and our collaborators, third-party manufacturers and suppliers are subject to rigorous and extensive regulation by the FDA and other federal and state agencies as well as foreign governmental agencies. These regulations continue to apply after product marketing approval, and cover, among other things, testing, manufacturing, quality control and assurance, labeling, advertising, promotion, risk mitigation, and adverse event reporting requirements.

The commercialization of our products is subject to post-regulatory approval product surveillance, and our products may have to be withdrawn from the market or subject to restrictions if previously unknown problems occur. Regulatory agencies may also require additional clinical trials or testing for our products, and our products may be recalled or may be subject to reformulation, additional studies, changes in labeling, warnings to the public and negative publicity. For example, from late 2013 through 2014, ICLUSIG was subject to review by the European Medicines Agency, or EMA, of the benefits and risks of ICLUSIG to better understand the nature, frequency and severity of events obstructing the arteries or veins, the potential mechanism that leads to these side effects and whether there needed to be a revision in the dosing recommendation, patient monitoring and a risk management plan for ICLUSIG. This review was completed in January 2015, with additional warnings in the product information but without any change in the approved indications. The EMA could take additional actions in the future that reduce the commercial potential of ICLUSIG.

Failure to comply with the laws and regulations administered by the FDA or other agencies could result in:

- administrative and judicial sanctions, including warning letters;

- fines and other civil penalties;
- suspension or withdrawal of regulatory approval to market or manufacture our products;
- interruption of production;
- operating restrictions;
- product recall or seizure;
- injunctions; and
- criminal prosecution.

The occurrence of any such event may have a material adverse effect on our business.

If the use of our products harms patients, or is perceived to harm patients even when such harm is unrelated to our products, our regulatory approvals could be revoked or otherwise negatively impacted or we could be subject to costly and damaging product liability claims.

The testing of JAKAFI and ICLUSIG, the manufacturing, marketing and sale of JAKAFI and the marketing and sale of ICLUSIG expose us to product liability and other risks. Side effects and other problems experienced by patients from the use of our products could:

- lessen the frequency with which physicians decide to prescribe our products;
- encourage physicians to stop prescribing our products to their patients who previously had been prescribed our products;
- cause serious harm to patients that may give rise to product liability claims against us; and
- result in our need to withdraw or recall our products from the marketplace.

If our products are used by a wide patient population, new risks and side effects may be discovered, the rate of known risks or side effects may increase, and risks previously viewed as less significant could be determined to be significant.

Previously unknown risks and adverse effects of our products may also be discovered in connection with unapproved, or off-label, uses of our products. We are prohibited by law from promoting or in any way supporting or encouraging the promotion of our products for off-label uses, but physicians are permitted to use products for off-label purposes. In addition, we are studying and expect to continue to study JAKAFI in diseases for potential additional indications in controlled clinical settings, and independent investigators are doing so as well. In the event of any new risks or adverse effects discovered as new patients are treated for intermediate or high-risk myelofibrosis, uncontrolled polycythemia vera or acute graft-versus-host disease and as JAKAFI is studied in or used by patients for off-label indications, regulatory authorities may delay or revoke their approvals, we may be required to conduct additional clinical trials, make changes in labeling of JAKAFI, reformulate JAKAFI or make changes and obtain new approvals. We may also experience a significant drop in the sales of JAKAFI, experience harm to our reputation and the reputation of JAKAFI in the marketplace or become subject to lawsuits, including class actions. Any of these results could decrease or prevent sales of JAKAFI or substantially increase the costs and expenses of commercializing JAKAFI. Similar results could occur with respect to our commercialization of ICLUSIG.

Patients who have been enrolled in our clinical trials or who may use our products in the future often have severe and advanced stages of disease and known as well as unknown significant pre-existing and potentially life-threatening

health risks. During the course of treatment, patients may suffer adverse events, including death, for reasons that may or may not be related to our products. Such events could subject us to costly litigation, require us to pay substantial amounts of money to injured patients, delay, negatively impact or end our opportunity to receive or maintain regulatory approval to market our products, or require us to suspend or abandon our commercialization efforts. Even in a circumstance in which we do not believe that an adverse event is related to our products, the investigation into the circumstance may be time consuming or inconclusive. These investigations may interrupt our sales efforts, impact and limit the type of regulatory approvals our products receive or maintain, or delay the regulatory approval process in other countries.

Factors similar to those listed above also apply to our collaboration partner Novartis, to ICLUSIG for jurisdictions outside the United States and to our collaboration partner Lilly for all jurisdictions.

If we market our products in a manner that violates various laws and regulations, we may be subject to civil or criminal penalties.

In addition to FDA and related regulatory requirements, we are subject to health care "fraud and abuse" laws, such as the federal False Claims Act, the anti-kickback provisions of the federal Social Security Act, and other state and federal laws and regulations. Federal and state anti-kickback laws prohibit, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any health care item or service reimbursable under Medicare, Medicaid, or other federally- or state-financed health care programs. Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. Pharmaceutical companies have been prosecuted under these laws for a variety of alleged promotional and marketing activities.

Although physicians are permitted, based on their medical judgment, to prescribe products for indications other than those approved by the FDA, manufacturers are prohibited from promoting their products for such off-label uses. We market JAKAFI for intermediate or high-risk myelofibrosis, uncontrolled polycythemia vera and acute graft-versus-host disease and provide promotional materials to physicians regarding the use of JAKAFI for these indications. Although we believe that our promotional materials for physicians do not constitute improper promotion of JAKAFI, the FDA or other agencies may disagree. If the FDA or another agency determines that our promotional materials or other activities constitute improper promotion of JAKAFI, it could request that we modify our promotional materials or other activities or subject us to regulatory enforcement actions, including the issuance of a warning letter, injunction, seizure, civil fine and criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they believe that the alleged improper promotion led to the submission and payment of claims for an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. Even if it is later determined we are not in violation of these laws, we may be faced with negative publicity, incur significant expenses defending our position and have to divert significant management resources from other matters.

The European Union and member countries, as well as governmental authorities in other countries, impose similar strict restrictions on the promotion and marketing of drug products. The off-label promotion of medicinal products is prohibited in the EU and in other territories, and the EU also maintains strict controls on advertising and promotional materials. The promotion of medicinal products that are not subject to a marketing authorization is also prohibited in the EU. Violations of the rules governing the promotion of medicinal products in the EU and in other territories could be penalized by administrative measures, fines and imprisonment.

The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Numerous states and localities have enacted or are considering enacting legislation requiring pharmaceutical companies to establish marketing compliance programs, file periodic reports or make periodic public disclosures on sales, marketing, pricing, clinical trials, and other activities. Additionally, as part of the Patient Protection and Affordable Care Act, the federal government has enacted the Physician Payment Sunshine provisions. The Sunshine provisions and similar laws and regulations in other jurisdictions where we do business require manufacturers to publicly report certain payments or other transfers of value made to physicians and teaching hospitals. Many of these requirements are new and uncertain, and the penalties for failure to comply with these requirements are unclear. Nonetheless, if we are

found not to be in full compliance with these laws, we could face enforcement action and fines and other penalties, which could be significant in amount or result in exclusion from federal healthcare programs such as Medicare and Medicaid. Any action initiated against us for violation of these laws, even if we successfully defend against it, could require the expenditure of significant resources and generate negative publicity, which could harm our business and operating results. See also "—Other Risks Relating to our Business—If we fail to comply with the extensive legal and regulatory requirements affecting the health care industry, we could face increased costs, penalties and a loss of business" below.

Competition for our products could harm our business and result in a decrease in our revenue.

Present and potential competitors for JAKAFI could include major pharmaceutical and biotechnology companies, as well as specialty pharmaceutical firms. For example, in August 2019, Celgene Corporation, now a subsidiary of Bristol-Myers Squibb Company, announced that the FDA had approved INREBIC (fedratinib) for the treatment of myelofibrosis. See "—Other Risks Relating to our Business— We face significant competition for our drug discovery and development efforts, and if we do not compete effectively, our commercial opportunities will be reduced or eliminated" for a description of risks relating to this type of competition. In addition, JAKAFI could face competition from generic products. As a result of the Drug Price Competition and Patent Term Restoration Act of 1984, commonly known as the Hatch-Waxman Act, in the United States, generic manufacturers may seek approval of a generic version of an innovative pharmaceutical by filing with the FDA an Abbreviated New Drug Application, or ANDA. The Hatch-Waxman Act provides significant incentives to generic manufacturers to challenge U.S. patents on successful innovative pharmaceutical products. In February 2016, we received a notice letter regarding an ANDA that requested approval to market a generic version of JAKAFI and purported to challenge patents covering ruxolitinib phosphate and its use that expire in 2028. The notice letter does not challenge the ruxolitinib composition of matter patent, which expires in December 2027. To date, to our knowledge, the FDA has taken no action with respect to this ANDA. Separately, in January 2018 the Patent Trial and Appeal Board (PTAB) of United States Patent and Trademark Office denied a petition challenging our patent covering deuterated ruxolitinib analogs and the PTAB subsequently denied Concert's Request for Rehearing in May 2018. Nevertheless, Concert still has the right separately to challenge the validity of the patent in federal court. There can be no assurance that our patents will be upheld or that any litigation in which we might engage with any such generic manufacturer would be successful in protecting JAKAFI's exclusivity. The entry of a generic version of JAKAFI could result in a decrease in JAKAFI sales and materially harm our business, operating results and financial condition.

ICLUSIG currently competes with existing therapies that are approved for the treatment of patients with chronic myeloid leukemia, or CML, who are resistant or intolerant to prior tyrosine kinase inhibitor, or TKI, therapies, on the basis of, among other things, efficacy, cost, breadth of approved use and the safety and side-effect profile. In addition, generic versions of imatinib are available and, while we currently believe that generic versions of imatinib will not materially impact our commercialization of ICLUSIG, given ICLUSIG's various indication statements globally that are currently focused on resistant or intolerant CML, we cannot be certain how physicians, payors, patients, regulatory authorities and other market participants will respond to the availability of generic versions of imatinib.

OTHER RISKS RELATING TO OUR BUSINESS

We may be unsuccessful in our efforts to discover and develop drug candidates and commercialize drug products.

Our long-term success, revenue growth and diversification of revenues depends on our ability to obtain regulatory approval for new drug products and new indications for our existing drug products. Our ability to discover and develop drug candidates and to commercialize additional drug products and indications will depend on our ability to:

- hire and retain key employees;
- identify high quality therapeutic targets;
- identify potential drug candidates;
- develop products internally or license drug candidates from others;

- identify and enroll suitable human subjects, either in the United States or abroad, for our clinical trials;
- complete laboratory testing;
- commence, conduct and complete safe and effective clinical trials on humans;
- obtain and maintain necessary intellectual property rights to our products;
- obtain and maintain necessary regulatory approvals for our products, both in the United States and abroad;
- enter into arrangements with third parties to provide services or to manufacture our products on our behalf;
- deploy sales, marketing, distribution and manufacturing resources effectively or enter into arrangements with third parties to provide these functions in compliance with all applicable laws;
- obtain appropriate coverage and reimbursement levels for the cost of our products from governmental authorities, private health insurers and other third-party payors;
- lease facilities at reasonable rates to support our growth; and
- enter into arrangements with third parties to license and commercialize our products.

We may not be successful in discovering, developing, or commercializing additional drug products or our existing drug products in new indications. Discovery and development of drug candidates are expensive, uncertain and time-consuming, and we do not know if our efforts will lead to discovery of any drug candidates that can be successfully developed and marketed. Of the compounds or biologics that we identify as potential drug products or that we may in-license from other companies, including potential products for which we are conducting clinical trials, only a few, if any, are likely to lead to successful drug development programs and commercialized drug products.

We depend heavily on the success of our most advanced drug candidates. We might not be able to commercialize any of our drug candidates successfully, and we may spend significant time and money attempting to do so.

We have invested significant resources in the development of our most advanced drug candidates. Ruxolitinib is in Phase III clinical trials for the treatment of patients with steroid-refractory graft-versus-host disease and is in other clinical trials. Itacitinib is in Phase III clinical trials for the treatment of patients with chronic graft-versus-host disease and pemigatinib is in a Phase III clinical trial for the treatment of patients with cholangiocarcinoma. Further, we have a number of drug candidates in Phase I and Phase II clinical trials. Our ability to generate product revenues will depend on the successful development and eventual commercialization of our most advanced drug candidates. We, or our collaborators or licensees, may decide to discontinue development of any or all of our drug candidates at any time for commercial, scientific or other reasons. For example: in early 2016, we decided to discontinue the clinical trials of ruxolitinib in pancreatic cancer and solid tumors and itacitinib in pancreatic cancer; and, in April 2018, we along with Merck stopped the ECHO-301 study with epacadostat, and we also significantly downsized the epacadostat development program. In addition, in January 2020 we announced that itacitinib did not meet the primary endpoint in the Phase III clinical trial for the treatment of patients with acute graft-versus-host disease. If a product is developed but not approved or marketed, we may have spent significant amounts of time and money on it, which could adversely affect our operating results and financial condition as well as our business plans.

If we or our collaborators are unable to obtain regulatory approval for our drug candidates in the United States and foreign jurisdictions, we or our collaborators will not be permitted to commercialize products resulting from our research.

In order to commercialize drug products in the United States, drug candidates will have to obtain regulatory approval from the FDA. Satisfaction of regulatory requirements typically takes many years. To obtain regulatory approval,

we or our collaborators, as the case may be, must first show that our drug candidates are safe and effective for target indications through preclinical testing (animal testing) and clinical trials (human testing). Preclinical testing and clinical development are long, expensive and uncertain processes, and we do not know whether the FDA will allow us or our collaborators to undertake clinical trials of any drug candidates in addition to our compounds currently in clinical trials. If regulatory approval of a product is granted, this approval will be limited to those disease states and conditions for which the product is demonstrated through clinical trials to be safe and effective.

Completion of clinical trials may take several years and failure may occur at any stage of testing. The length of time required varies substantially according to the type, complexity, novelty and intended use of the drug candidate. Interim results of a preclinical test or clinical trial do not necessarily predict final results, and acceptable results in early clinical trials may not be repeated in later clinical trials. For example, a drug candidate that is successful at the preclinical level may cause harmful or dangerous side effects when tested at the clinical level. Our rate of commencement and completion of clinical trials may be delayed, and existing clinical trials with our drug candidates may be stopped, due to many potential factors, including:

- the high degree of risk and uncertainty associated with drug development;
- our inability to formulate or manufacture sufficient quantities of materials for use in clinical trials;
- variability in the number and types of patients available for each study;
- difficulty in maintaining contact with patients after treatment, resulting in incomplete data;
- unforeseen safety issues or side effects;
- poor or unanticipated effectiveness of drug candidates during the clinical trials; or
- government or regulatory delays.

Data obtained from clinical trials are susceptible to varying interpretation, which may delay, limit or prevent regulatory approval. Many companies in the pharmaceutical and biopharmaceutical industry, including our company, have suffered significant setbacks in advanced clinical trials, even after achieving promising results in earlier clinical trials. In addition, regulatory authorities may refuse or delay approval as a result of other factors, such as changes in regulatory policy during the period of product development and regulatory agency review. For example, the FDA has in the past required, and could in the future require, that we or our collaborators conduct additional trials of any of our drug candidates, which would result in delays. In April 2017, we and our collaborator Lilly announced that the FDA had issued a complete response letter for the New Drug Application, or NDA, of OLUMIANT as a once-daily oral medication for the treatment of moderate-to-severe rheumatoid arthritis. The letter indicated that additional clinical data were needed to determine the most appropriate doses and to further characterize safety concerns across treatment arms. In June 2018, after a resubmission of the NDA, the FDA approved the 2mg dose of OLUMIANT for the treatment of adults with moderately-to-severely active rheumatoid arthritis who have had an inadequate response to one or more tumor necrosis factor inhibitor therapies. The FDA did not at that time approve any higher dose of OLUMIANT and required a warning label in connection with its approval.

Compounds or biologics developed by us or with or by our collaborators and licensees may not prove to be safe and effective in clinical trials and may not meet all of the applicable regulatory requirements needed to receive marketing approval. For example, in January 2016, a Phase II trial that was evaluating ruxolitinib in combination with regorafenib in patients with relapsed or refractory metastatic colorectal cancer and high C-reactive protein was stopped early after a planned analysis of interim efficacy data determined that the likelihood of the trial meeting its efficacy endpoint was insufficient. In addition, in February 2016, we made a decision to discontinue our JANUS 1 study, our JANUS 2 study, our other studies of ruxolitinib in colorectal, breast and lung cancer, and our study of INCB39110 in pancreatic cancer after a planned analysis of interim efficacy data of JANUS 1 demonstrated that ruxolitinib plus capecitabine did not show a sufficient level of efficacy to warrant continuation. Also, in April 2018, we along with Merck announced that the ECHO-

301 study had been stopped and we also significantly downsized the epacadostat development program and in January 2020 we stopped our Phase III trial of itacitinib for the treatment of acute graft-versus-host-disease. If clinical trials of any of our compounds or biologics are stopped for safety, efficacy or other reasons or fail to meet their respective endpoints, our overall development plans, business, prospects, expected operating results and financial condition could be materially harmed and the value of our company could be negatively affected.

Outside the United States, our and our collaborators' ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. This foreign regulatory approval process typically includes all of the risks associated with the FDA approval process described above and may also include additional risks. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country and may require us to perform additional testing and expend additional resources. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other countries or by the FDA.

Health care reform measures could impact the pricing and profitability of pharmaceuticals, and adversely affect the commercial viability of our or our collaborators' products and drug candidates. Our ability to generate revenues will be diminished if we or our collaborators are unable to obtain an adequate level of reimbursement from private insurers, government insurance programs or other third-party payors of health care costs, which could be affected by current and potential healthcare reform legislation, and diminished revenues will harm our operating results and financial condition and could adversely affect our ability to conduct our research and development operations.

Our ability to commercialize our current and any future approved products successfully will depend in part on the prices we are able to charge for our approved products and the extent to which adequate reimbursement levels for the cost of our products and related treatment are obtained from third-party payors, such as private insurers, government insurance programs, including Medicare and Medicaid, health maintenance organizations (HMOs) and other health care related organizations in the U.S. and abroad.

In recent years, through legislative and regulatory actions, the U.S. federal government has made substantial changes to various payment systems under the Medicare and other federal health care programs. Comprehensive reforms to the U.S. healthcare system were enacted, including changes to the methods for, and amounts of, Medicare reimbursement. While there is currently significant uncertainty regarding the implementation of some of these reforms or the scope of amended or additional reforms, the implementation of reforms could significantly reduce payments from Medicare and Medicaid. Reforms or other changes to these payment systems may change the availability, methods and rates of reimbursements from Medicare, private insurers and other third-party payors for our current and any future approved products. Some of these changes and proposed changes could result in reduced reimbursement rates or in eliminating dual sources of payment, which could reduce the price that we or any of our collaborators or licensees receive for any products in the future, and which would adversely affect our business strategy, operations and financial results.

In addition, there has been an increasing legislative and enforcement interest in the United States with respect to drug pricing practices. This has resulted in several recent federal and state proposals to regulate prices of pharmaceutical products and other health care reforms, any of which could limit the prices that we can charge for our products and may further limit the commercial viability of our products and drug candidates. Specifically, there have been several federal congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, reform government program reimbursement methodologies for prescription drugs, allow importation of drugs into the U.S. from other countries and limit allowable prices for drugs to a function of an average international reference price that may be substantially lower than what we currently or would otherwise charge. In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. We expect that the health care reform measures that have been adopted in the United States and in foreign markets, and further reforms that may be adopted in the future, could result in more rigorous coverage criteria and additional downward pressure on the prices that we may receive for our approved products. If reimbursement for our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be materially harmed, including by our revenue potentially being materially adversely affected and our research and development efforts potentially being materially curtailed or, in some cases, ceasing. There may be future changes that result in reductions in current prices, coverage and reimbursement levels for our current or any future

approved products, and we cannot predict the scope of any future changes or the impact that those changes would have on our operations.

If third parties institute high co-payment amounts or other benefit limits for our products, the demand for our products and, accordingly, our revenues and results of operations, could be adversely affected. Our patient assistance programs have provided support for non-profit organizations that provide financial assistance to eligible patients or in some cases have provided our products without charge to patients who have no or limited insurance coverage through these charitable organizations. Substantial support in this manner could harm our profitability in the future. Further, those organizations' ability to provide assistance to patients is dependent on funding from external sources, and we cannot guarantee that such funding will be provided at adequate levels, or at all.

Further, if we become the subject of any governmental or other regulatory hearing or investigation with respect to the pricing of our products or other business practices, we could incur significant expenses and could be distracted from the operation of our business and execution of our business strategy. Any such hearing or investigation could also result in significant negative publicity and harm to our reputation, reduced market acceptance and demand, which could adversely affect our financial results and growth prospects.

Third-party payors are increasingly challenging the prices charged for medical products and services. Also, the trend toward managed health care in the United States, the organizations for which could control or significantly influence the purchase of health care services and products, as well as legislative and regulatory proposals to reform health care or reduce government insurance programs, may all result in lower prices for or rejection of our products. Adoption of our products by the medical community may be limited without adequate reimbursement for those products. Cost control initiatives may decrease coverage and payment levels for our products and, in turn, the price that we will be able to charge for any product. Our products may not be considered cost-effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our products on a profitable basis. We are unable to predict all changes to the coverage or reimbursement methodologies that will be applied by private or government payors to our current and any future approved products.

The continuing efforts of legislatures, health agencies and third-party payors to contain or reduce the costs of health care, any denial of private or government payor coverage or inadequate reimbursement for our drug candidates could materially and adversely affect our business strategy, operations, future revenues and profitability, and the future revenues and profitability of our potential customers, suppliers, collaborators and licensees and the availability of capital. The same risks apply to our compounds developed and marketed by our collaborators, and our future potential milestone and royalty revenues could be affected in a similar manner.

We depend on our collaborators and licensees for the future development and commercialization of some of our drug candidates. Conflicts may arise between our collaborators and licensees and us, or our collaborators and licensees may choose to terminate their agreements with us, which may adversely affect our business.

We have licensed to Novartis rights to ruxolitinib outside of the United States and worldwide rights to our MET inhibitor compounds and licensed to Lilly worldwide rights to baricitinib. In addition, we have licensed to Innovent and to Zai Lab certain Asian rights to some of our clinical stage compounds. Under the terms of our agreements with these collaborators, we have no or limited control over the further clinical development of these drug candidates in the relevant territories and any revenues we may receive if these drug candidates receive regulatory approval and are commercialized in the relevant territories will depend primarily on the development and commercialization efforts of others. While OLUMIANT was approved by the European Commission in February 2017 for the treatment of moderate-to-severe rheumatoid arthritis in adult patients and by Japan's Ministry of Health, Labor and Welfare in July 2017 for the treatment of rheumatoid arthritis in patients with inadequate response to standard-of-care therapies, the NDA for OLUMIANT for the treatment of moderate-to-severe rheumatoid arthritis was approved in June 2018, and only in the lower dosage tablet and with a warning label. Delays in any marketing approval by the FDA, European or other regulatory authorities, or any label modifications or restrictions in connection with any such approval, or the existence of other risks relating to approved drug products, including those described under "Risks Relating to Commercialization of Our Products," could delay the receipt of and reduce resulting potential royalty and milestone revenue from baricitinib or any of our other out-licensed drug candidates.

Conflicts may arise with our collaborators and licensees if they pursue alternative technologies or develop alternative products either on their own or in collaboration with others as a means for developing treatments for the diseases that we have targeted. Competing products and product opportunities may lead our collaborators and licensees to withdraw their support for our drug candidates. Any failure of our collaborators and licensees to perform their obligations under our agreements with them or otherwise to support our drug candidates could negatively impact the development of our drug candidates, lead to our loss of potential revenues from product sales and milestones and delay our achievement, if any, of profitability. Additionally, conflicts may arise if, among other things, there is a dispute about the achievement and payment of a milestone amount or the ownership of intellectual property that is developed during the course of a collaborative relationship.

Our existing collaborative and license agreements can be terminated by our collaborators and licensees for convenience, among other circumstances. If any of our collaborators or licensees terminates its agreement with us, or terminates its rights with respect to certain indications or drug candidates, we may not be able to find a new collaborator for them, and our business could be adversely affected. Should an agreement be terminated before we have realized the benefits of the collaboration or license, our reputation could be harmed, we may not obtain revenues that we anticipated receiving, and our business could be adversely affected.

The success of our drug discovery and development efforts may depend on our ability to find suitable collaborators to fully exploit our capabilities. If we are unable to establish collaborations or if these future collaborations are unsuccessful in the development and commercialization of our drug candidates, our research, development and commercialization efforts may be unsuccessful, which could adversely affect our results of operations and financial condition.

An element of our business strategy is to enter into collaborative or license arrangements with other parties, under which we license our drug candidates to those parties for development and commercialization or under which we study our drug candidates in combination with other parties' compounds or biologics. For example, in addition to our Novartis, Lilly, Innovent and Zai Lab collaborations, we have entered into clinical study relationships with respect to several of our programs, including epacadostat, and are evaluating strategic relationships with respect to several of our other programs. However, because collaboration and license arrangements are complex to negotiate, we may not be successful in our attempts to establish these arrangements. Also, we may not have drug candidates that are desirable to other parties, or we may be unwilling to license a drug candidate to a particular party because such party interested in it is a competitor or for other reasons. The terms of any such arrangements that we establish may not be favorable to us. Alternatively, potential collaborators may decide against entering into an agreement with us because of our financial, regulatory or intellectual property position or for scientific, commercial or other reasons. If we are not able to establish collaboration or license arrangements, we may not be able to develop and commercialize a drug product, which could adversely affect our business and our revenues.

We will likely not be able to control the amount and timing of resources that our collaborators or licensees devote to our programs or drug candidates. If our collaborators or licensees prove difficult to work with, are less skilled than we originally expected, do not devote adequate resources to the program, are unable to obtain regulatory approval of our drug candidates, pursue alternative technologies or develop alternative products, or do not agree with our approach to development or manufacturing of the drug candidate, the relationship could be unsuccessful. Our collaborations with respect to epacadostat involved the study of our collaborators' drugs used in combination with epacadostat on a number of indications or tumor types, many of which were the same across multiple collaborations. We cannot assure you that potential conflicts will not arise or be alleged among these collaborations. If a business combination involving a collaborator or licensee and a third-party were to occur, the effect could be to terminate or cause delays in development of a drug candidate.

If we fail to enter into additional licensing agreements or if these arrangements are unsuccessful, our business and operations might be adversely affected.

In addition to establishing collaborative or license arrangements under which other parties license our drug candidates for development and commercialization or under which we study our drug candidates in combination with such parties' compounds or biologics, we may explore opportunities to develop our clinical pipeline by in-licensing drug

candidates or therapeutics targets that fit within our focus on oncology, such as our collaborations with Agenus Inc., Calithera Biosciences, Inc., MacroGenics, Inc., Merus N.V., MorphoSys AG, and Syros Pharmaceuticals, Inc., or explore additional opportunities to further develop and commercialize existing drug candidates in specific jurisdictions, such as our June 2016 acquisition of the development and commercialization rights to ICLUSIG in certain countries. We may be unable to enter into any additional in-licensing agreements because suitable drug candidates that are within our expertise may not be available to us on terms that are acceptable to us or because competitors with greater resources seek to in-license the same drug candidates. Drug candidates that we would like to develop or commercialize may not be available to us because they are controlled by competitors who are unwilling to license the rights to the drug candidate to us. In addition, we may enter into license agreements that are unsuccessful and our business and operations might be adversely affected if we are unable to realize the expected economic benefits of a collaboration or other licensing arrangement, by the termination of a drug candidate and termination and winding down of the related license agreement, or due to other business or regulatory issues, including financial difficulties, that may adversely affect a licensor's ability to continue to perform its obligations under an in-license agreement. For example, we may make or incur contractual obligations to make significant upfront payments in connection with licenses for late-stage drug candidates, such as we recently did in entering into a collaboration agreement with MorphoSys in January 2020, and if any of those drug candidates do not receive marketing approval as anticipated or we have to fund additional clinical trials before marketing approval can be obtained, we will have expended significant funds that might otherwise be applied for other uses or have to expend funds that were not otherwise budgeted or anticipated in connection with the collaboration, and such developments could have a material adverse effect on our stock price and our ability to pursue other transactions. As discussed above under "We depend on our collaborators and licensees for the future development and commercialization of some of our drug candidates. Conflicts may arise between our collaborators and licensees and us, or our collaborators and licensees may choose to terminate their agreements with us, which may adversely affect our business," conflicts or other issues may arise with our licensors. Those conflicts could result in delays in our plans to develop drug candidates or result in the expenditure of additional funds to resolve those conflicts that could have an adverse effect on our results of operations. We may also need to license drug delivery or other technology in order to continue to develop our drug candidates. If we are unable to enter into additional agreements to license drug candidates, drug delivery technology or other technology or if these arrangements are unsuccessful, our research and development efforts could be adversely affected.

Even if a drug candidate that we develop receives regulatory approval, we may decide not to commercialize it if we determine that commercialization of that product would require more money and time than we are willing to invest.

Even if any of our drug candidates receives regulatory approval, it could be subject to post-regulatory surveillance, and may have to be withdrawn from the market or subject to restrictions if previously unknown problems occur. Regulatory agencies may also require additional clinical trials or testing, and the drug product may be recalled or may be subject to reformulation, additional studies, changes in labeling, warnings to the public and negative publicity. As a result, we may not continue to commercialize a product even though it has obtained regulatory approval. Further, we may decide not to continue to commercialize a product if the market does not accept the product because it is too expensive or because third parties such as insurance companies or Medicare, have not approved it for substantial reimbursement. In addition, we may decide not to continue to commercialize a product if competitors develop and commercialize similar or superior products or have proprietary rights that preclude us from ultimately marketing our products.

Any approved drug product that we bring to the market may not gain market acceptance by physicians, patients, healthcare payors and others in the medical community.

Even if we or our collaborators are successful in gaining regulatory approval of any of our drug candidates in addition to JAKAFI and OLUMIANT or acquire rights to approved drug products in addition to ICLUSIG, we may not generate significant product revenues if these drug products do not achieve an adequate level of acceptance. Physicians may not recommend our or our collaborators' drug products until longer-term clinical data or other factors demonstrate the safety and efficacy of our or our collaborators' drug products as compared to other alternative treatments. Even if the clinical safety and efficacy of our or our collaborators' drug products is established, physicians may elect not to prescribe these drug products for a variety of reasons, including the reimbursement policies of government and other third-party payors and the effectiveness of our or our collaborators' competitors in marketing their products.

Market acceptance of our drug products, if approved for commercial sale, will depend on a number of factors,

including the following, and market acceptance of our collaborators' drug products will depend on similar factors:

- the willingness and ability of patients and the healthcare community to use our drug products;
- the ability to manufacture our drug products in sufficient quantities that meet all applicable quality standards and to offer our drug products for sale at competitive prices;
- the perception of patients and the healthcare community, including third-party payors, regarding the safety, efficacy and benefits of our drug products compared to those of competing products or therapies;
- the label and promotional claims allowed by the FDA;
- the pricing and reimbursement of our drug products relative to existing treatments; and
- marketing and distribution support for our drug products.

We have limited capacity to conduct preclinical testing and clinical trials, and our resulting dependence on other parties could result in delays in and additional costs for our drug development efforts.

We have limited internal resources and capacity to perform preclinical testing and clinical trials. As part of our development strategy, we often hire clinical research organizations, or CROs, to perform preclinical testing and clinical trials for drug candidates. If the CROs that we hire to perform our preclinical testing and clinical trials do not meet deadlines, do not follow proper procedures, or a conflict arises between us and our CROs, our preclinical testing and clinical trials may take longer than expected, may cost more, may be delayed or may be terminated. If we were forced to find a replacement entity to perform any of our preclinical testing or clinical trials, we may not be able to find a suitable entity on favorable terms, or at all. Even if we were able to find another company to perform a preclinical test or clinical trial, the delay in the test or trial may result in significant additional expenditures. Events such as these may result in delays in our obtaining regulatory approval for our drug candidates or our ability to commercialize our products and could result in increased expenditures that would adversely affect our operating results.

We face significant competition for our drug discovery and development efforts, and if we do not compete effectively, our commercial opportunities will be reduced or eliminated.

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. Our drug discovery and development efforts may target diseases and conditions that are already subject to existing therapies or that are being developed by our competitors, many of which have substantially greater resources, larger research and development staffs and facilities, more experience in completing preclinical testing and clinical trials, and formulation, marketing and manufacturing capabilities. As a result of these resources, our competitors may develop drug products that render our products obsolete or noncompetitive by developing more effective drugs, developing their products more efficiently or pricing their products more competitively. Our ability to develop competitive products would be limited if our competitors succeeded in obtaining regulatory approvals for drug candidates more rapidly than we were able to or in obtaining patent protection or other intellectual property rights that limited our drug development efforts. Any drug products resulting from our research and development efforts, or from our joint efforts with collaborators or licensees, might not be able to compete successfully with our competitors' existing and future products, or obtain regulatory approval in the United States or elsewhere. The development of products or processes by our competitors with significant advantages over those that we are developing could harm our future revenues and profitability.

Our reliance on other parties to manufacture our drug products and drug candidates could result in a short supply of the drugs, delays in clinical trials or drug development, increased costs, and withdrawal or denial of a regulatory authority's approval.

We do not currently operate manufacturing facilities for clinical or commercial production of JAKAFI and our other drug candidates or for ICLUSIG. We currently hire third parties to manufacture the raw materials, active

pharmaceutical ingredient, or API, and finished drug product of JAKAFI, ICLUSIG and our other drug candidates for clinical trials. In addition, we expect to continue to rely on third parties for the manufacture of commercial supplies of raw materials, API and finished drug product for any drugs that we successfully develop. We also hire third parties to package and label the finished product. The FDA requires that the raw materials, API and finished product for JAKAFI and our other drug candidates be manufactured according to its current Good Manufacturing Practices regulations and regulatory authorities in other countries have similar requirements. There are only a limited number of manufacturers that comply with these requirements. Failure to comply with current Good Manufacturing Practices and the applicable regulatory requirements of other countries in the manufacture of our drug candidates and products could result in the FDA or a foreign regulatory authority halting our clinical trials, withdrawing or denying regulatory approval of our drug product, enforcing product recalls or other enforcement actions, which could have a material adverse effect on our business.

We may not be able to obtain sufficient quantities of our drug candidates or any drug products we may develop if our designated manufacturers do not have the capacity or capability to manufacture them according to our schedule and specifications. Manufacturers of pharmaceutical products often encounter difficulties in production, especially in scaling up initial production. These problems include difficulties with production costs and yields, quality control and assurance and shortages of qualified personnel. To the extent our supply chain involves parties in China or materials originating in areas of China that are or could be affected by disease outbreaks such as the recent spread of coronavirus in early 2020, we could see disruptions to our supply chain. In addition, we may not be able to arrange for our drug candidates or any drug products that we may develop to be manufactured by one of these parties on reasonable terms, if at all. We generally have a single source or a limited number of suppliers that are qualified to supply each of the API and finished product of JAKAFI, ICLUSIG and our other drug candidates and, in the case of JAKAFI, we only have a single source for its raw materials. If any of these suppliers were to become unable or unwilling to supply us with raw materials, API or finished product that complies with applicable regulatory requirements, we could incur significant delays in our clinical trials or interruption of commercial supply that could have a material adverse effect on our business. If we have promised delivery of a drug candidate or drug product and are unable to meet the delivery requirement due to manufacturing difficulties, our development programs could be delayed, we may have to expend additional sums in order to ensure that manufacturing capacity is available when we need it even if we do not use all of the manufacturing capacity, and our business and operating results could be harmed.

We may not be able to adequately manage and oversee the manufacturers we choose, they may not perform as agreed or they may terminate their agreements with us. Foreign manufacturing approval processes typically include all of the risks associated with the FDA approval process for manufacturing and may also include additional risks.

A number of our collaborations involve the manufacture of antibodies. Either we or our collaborators have primary responsibility for manufacturing activities, and we are currently using third-party contract manufacturing organizations. Manufacturing antibodies and products containing antibodies is a more complex process than manufacturing small molecule drugs and subject to additional risks. The process of manufacturing antibodies and products containing antibodies is highly susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics, and difficulties in scaling up the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.

If we fail to comply with the extensive legal and regulatory requirements affecting the health care industry, we could face increased costs, penalties and a loss of business.

Our activities, and the activities of our collaborators, partners and third-party providers, are subject to extensive government regulation and oversight both in the United States and in foreign jurisdictions. The FDA and comparable agencies in other jurisdictions directly regulate many of our most critical business activities, including the conduct of preclinical and clinical studies, product manufacturing, advertising and promotion, product distribution, adverse event reporting and product risk management. States increasingly have been placing greater restrictions on the marketing practices of healthcare companies and have instituted pricing disclosure and other requirements for companies selling pharmaceuticals. In addition, pharmaceutical and biotechnology companies have been the target of lawsuits and

investigations alleging violations of government regulations, including claims asserting submission of incorrect pricing information, improper promotion of pharmaceutical products, payments intended to influence the referral of federal or state healthcare business, submission of false claims for government reimbursement, antitrust violations, violations of the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery or anti-corruption laws, or violations related to environmental matters. There is also enhanced scrutiny of company-sponsored patient assistance programs, including insurance premium and co-pay assistance programs and donations to third-party charities that provide such assistance. In December 2018, we received a civil investigative demand from the U.S. Department of Justice for documents and information relating to our speaker programs and patient assistance programs, including our support of non-profit organizations that provide financial assistance to eligible patients. Violations of governmental regulation by us, our vendors or donation recipients may be punishable by criminal and civil sanctions, including damages, fines and penalties and exclusion from participation in government programs, including Medicare and Medicaid. In addition to damages, fines and penalties for violation of laws and regulations, we could be required to repay amounts we received from government payors, or pay additional rebates and interest if we are found to have miscalculated the pricing information we have submitted to the government. Actions taken by federal or local governments, legislative bodies and enforcement agencies with respect to these legal and regulatory compliance matters could also result in reduced demand for our products, reduced coverage of our products by health care payors, or both. We cannot ensure that our compliance controls, policies, and procedures will in every instance protect us from acts committed by our employees, collaborators, partners or third-party providers that would violate the laws or regulations of the jurisdictions in which we operate. Whether or not we have complied with the law, an investigation into alleged unlawful conduct could increase our expenses, damage our reputation, divert management time and attention and adversely affect our business. Risks relating to compliance with laws and regulations may be heightened as we continue to expand our global operations and enter new therapeutic areas with different patient populations, which due to different product distribution methods, marketing programs or patient assistance programs may result in additional regulatory burdens and obligations.

The illegal distribution and sale by third parties of counterfeit or unfit versions of our or our collaborators' products or stolen products could harm our business and reputation.

We are aware that counterfeit versions of our products have been distributed or sold by entities not authorized by us using product packaging suggesting that the product was provided by us. If unauthorized third parties illegally distribute and sell counterfeit versions of our or our collaborators' products, those products may not meet our or our collaborators' rigorous manufacturing, distribution and handling standards. In addition, inventory that is stolen from warehouses, plants or while in-transit, and that is subsequently improperly stored and sold through unauthorized channels, may not meet our or our collaborators' distribution and handling standards. A patient who receives a counterfeit or unfit drug may suffer dangerous health consequences. Our reputation and business could suffer harm as a result of counterfeit or unfit drugs sold under our brand name and could result in lost sales for us and decreased revenues. If counterfeit or unfit drugs are sold under our or our collaborators' brand names, our reputation and business could suffer harm and we could experience decreased royalty revenues.

As most of our drug discovery and development operations are conducted at our headquarters in Wilmington, Delaware, the loss of access to this facility would negatively impact our business.

Our facility in Wilmington, Delaware is our headquarters and is also where we conduct most of our drug discovery, research, development and marketing activities. In addition, natural disasters or actions of activists opposed to aspects of pharmaceutical research may disrupt our experiments or our ability to access or use our facility. The loss of access to or use of our Wilmington, Delaware facility, either on a temporary or permanent basis, would result in an interruption of our business and, consequently, would adversely affect our overall business.

We depend on key employees in a competitive market for skilled personnel, and the loss of the services of any of our key employees or our inability to attract and retain additional personnel would affect our ability to expand our drug discovery and development programs and achieve our objectives.

We are highly dependent on the members of our executive management team and principal members of our commercial, development, medical, operations and scientific staff. We experience intense competition for qualified personnel. Our future success also depends in part on the continued service of our executive management team and key

personnel and our ability to recruit, train and retain essential personnel for our drug discovery and development programs, and for our medical affairs and commercialization activities. If we lose the services of any of these people or if we are unable to recruit sufficient qualified personnel, our research and product development goals, and our commercialization efforts could be delayed or curtailed. We do not maintain "key person" insurance on any of our employees.

If we fail to manage our growth effectively, our ability to develop and commercialize products could suffer.

We expect that if our drug discovery efforts continue to generate drug candidates, our clinical drug candidates continue to progress in development, and we continue to build our development, medical and commercial organizations, we will require significant additional investment in personnel, management and resources. Our ability to achieve our research, development and commercialization objectives depends on our ability to respond effectively to these demands and expand our internal organization, systems, controls and facilities to accommodate additional anticipated growth. If we are unable to manage our growth effectively, our business could be harmed and our ability to execute our business strategy could suffer.

We may acquire businesses or assets, form joint ventures or make investments in other companies that may be unsuccessful, divert our management's attention and harm our operating results and prospects.

As part of our business strategy, we may pursue additional acquisitions of what we believe to be complementary businesses or assets or seek to enter into joint ventures. We also may pursue strategic alliances in an effort to leverage our existing infrastructure and industry experience to expand our product offerings or distribution, or make investments in other companies. For example, in June 2016, we completed the acquisition of the European operations of ARIAD and obtained the exclusive license to develop and commercialize ICLUSIG in Europe and other countries. The success of our acquisitions, joint ventures, strategic alliances and investments will depend on our ability to identify, negotiate, complete and, in the case of acquisitions, integrate those transactions and, if necessary, obtain satisfactory debt or equity financing to fund those transactions. We may not realize the anticipated benefits of any acquisition, joint venture, strategic alliance or investment. We may not be able to integrate acquisitions successfully into our existing business, achieve planned synergies or cost savings, maintain the key business relationships of businesses we acquire, or retain key personnel of an acquired business, and we could assume unknown or contingent liabilities or incur unanticipated expenses. Integration of acquired companies or businesses also may require management resources that otherwise would be available for ongoing development of our existing business. Any acquisitions or investments made by us also could result in significant write-offs or the incurrence of debt and contingent liabilities, any of which could harm our operating results. For example, as recently as the year ended December 31, 2018, we recorded unrealized losses related to our investments in Agenus Inc., Calithera Biosciences, Inc., Merus N.V. and Syros Pharmaceuticals, Inc., and we may in the future experience additional losses related to our investments. In addition, if we choose to issue shares of our stock as consideration for any acquisition, dilution to our stockholders could result.

Risks associated with the expansion of our operations outside of the United States could adversely affect our business.

Our acquisition of ARIAD's European operations significantly expanded our operations in Europe, and we plan to continue to expand our operations and conduct certain development activities outside of the United States. For example, as part of our plans to expand our activities outside of the United States, we now conduct some of our drug development activities in Japan and are in the process of opening an office in China. International operations and business expansion plans are subject to numerous additional risks, including:

- multiple, conflicting and changing laws and regulations such as tax laws, privacy regulations, tariffs, export and import restrictions, employment, immigration and labor laws, regulatory requirements, and other governmental approvals, permits and licenses, compliance with which can increase in complexity as we enter into additional jurisdictions;

- difficulties in staffing and managing operations in diverse countries and difficulties in connection with assimilating and integrating any operations and personnel we might acquire into our company;

- risks associated with obtaining and maintaining, or the failure to obtain or maintain, regulatory approvals for the sale or use of our products in various countries;

- complexities associated with managing government payor systems, multiple payor-reimbursement regimes or patient self-pay systems;

- financial risks, such as longer payment cycles, difficulty obtaining financing in foreign markets, difficulty enforcing contracts and intellectual property rights, difficulty collecting accounts receivable and exposure to foreign currency exchange rate fluctuations;

- general political and economic conditions in the countries in which we operate, including terrorism and political unrest, curtailment of trade and other business restrictions, and uncertainties associated with the future relationship between the United Kingdom and the European Union;

- public health risks, such as the recent spread in China of coronavirus in early 2020, and related effects on supply chain, travel and employee health and availability; and

- regulatory and compliance risks that relate to maintaining accurate information and control over activities that may fall within the purview of the U.S. Foreign Corrupt Practices Act, its books and records provisions or its anti-bribery provisions, or similar anti-bribery or anti-corruption laws and regulations in other countries, such as the U.K. Anti-Bribery Act and the U.K. Criminal Finances Act, which may have similarly broad extraterritorial reach.

Any of the risks described above, if encountered, could significantly increase our costs of operating internationally, prevent us from operating in certain jurisdictions, or otherwise significantly harm our future international expansion and operations, which could have a material adverse effect on our business, financial condition and results of operations.

If product liability lawsuits are brought against us, we could face substantial liabilities and may be required to limit commercialization of our products and our results of operations could be harmed.

In addition to the risks described above under "—Risks Relating to Commercialization of Our Products—If the use of our products harms patients, or is perceived to harm patients even when such harm is unrelated to our products, our regulatory approvals could be revoked or otherwise negatively impacted or we could be subject to costly and damaging product liability claims," the conduct of clinical trials of medical products that are intended for human use entails an inherent risk of product liability. If any product that we or any of our collaborators or licensees develops causes or is alleged to cause injury during clinical trials or commercialization, we may be held liable. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities, including substantial damages to be paid to the plaintiffs and legal costs, or we may be required to limit further development and commercialization of our products. Additionally, any product liability lawsuit could cause injury to our reputation, participants and investigators to withdraw from clinical trials, and potential collaborators or licensees to seek other partners, any of which could impact our results of operations.

Our product liability insurance policy may not fully cover our potential liabilities. In addition, we may determine that we should increase our coverage, and this insurance may be prohibitively expensive to us or our collaborators or licensees and may not fully cover our potential liabilities. Since December 30, 2017, we elected to self-insure a portion of our exposure to product liability risks through our wholly-owned captive insurance subsidiary, in tandem with third-party insurance policies. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the development or commercialization of our drug candidates and products, and if our liabilities from any such claims exceed our third-party insurance limits and self-insurance reserves, our results of operations, cash flows and financial condition could be adversely impacted.

Because our activities involve the use of hazardous materials, we may be subject to claims relating to improper handling, storage or disposal of these materials that could be time consuming and costly.

We are subject to various environmental, health and safety laws and regulations governing, among other things, the use, handling, storage and disposal of regulated substances and the health and safety of our employees. Our research and development processes involve the controlled use of hazardous and radioactive materials and biological waste resulting in the production of hazardous waste products. We cannot completely eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. If any injury or contamination results from our use or the use by our collaborators or licensees of these materials, we may be sued and our liability may exceed our insurance coverage and our total assets. Further, we may be required to indemnify our collaborators or licensees against all damages and other liabilities arising out of our development activities or products produced in connection with these collaborations or licenses. Compliance with the applicable environmental and workplace laws and regulations is expensive. Future changes to environmental, health, workplace and safety laws could cause us to incur additional expense or may restrict our operations or impair our research, development and production efforts.

RISKS RELATING TO OUR FINANCIAL RESULTS

We may incur losses in the future, and we expect to continue to incur significant expenses to discover and develop drugs, which may make it difficult for us to achieve sustained profitability on a quarterly or annual basis in the future.

Due to historical net losses, we had an accumulated deficit of $1.4 billion as of December 31, 2019. We intend to continue to spend significant amounts on our efforts to discover and develop drugs. As a result, we may incur losses in future periods as well. Our revenues, expenses and net income (loss) may fluctuate, even significantly, due to the risks described in these “Risk Factors” and factors discussed in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” as well as the timing of charges and expenses that we may take, including those relating to transactions such as acquisitions and the entry into collaborative agreements.

We anticipate that our drug discovery and development efforts and related expenditures will increase as we focus on the studies, including preclinical tests and clinical trials prior to seeking regulatory approval, that are required before we can sell a drug product.

The development of drug products will require us to spend significant funds on research, development, testing, obtaining regulatory approvals, manufacturing and marketing. To date, we do not have any drug products that have generated significant revenues other than from sales of JAKAFI and we cannot assure you that we will generate significant revenues from the drug candidates that we license or develop, including ICLUSIG, for several years, if ever.

We cannot be certain whether or when we will achieve sustained or increased profitability on a quarterly or annual basis because of the factors discussed above and the significant uncertainties relating to our ability to generate commercially successful drug products. Even if we are successful in obtaining regulatory approvals for manufacturing and commercializing drug products in addition to JAKAFI and ICLUSIG, we may incur losses if our drug products do not generate significant revenues.

We may need additional capital in the future. If we are unable to generate sufficient funds from operations, the capital markets may not permit us to raise additional capital at the time that we require it, which could result in limitations on our research and development or commercialization efforts or the loss of certain of our rights in our technologies or drug candidates.

Our future funding requirements will depend on many factors and we anticipate that we may need to raise additional capital to fund our business plan and research and development efforts going-forward.

Additional factors that may affect our future funding requirements include:

- the amount of revenues generated from our business activities;

- any changes in the breadth of our research and development programs;
- the results of research and development, preclinical testing and clinical trials conducted by us or our current or future collaborators or licensees, if any;
- our exercise of any co-development options with collaborators that may require us to fund future development;
- the acquisition of businesses, technologies, or drug candidates, or the licensing of technologies or drug candidates, if any;
- costs for future facility requirements;
- our ability to maintain and establish new corporate relationships and research collaborations;
- competing technological and market developments;
- the time and costs involved in filing, prosecuting, defending and enforcing patent and intellectual property claims;
- the receipt of contingent licensing or milestone fees or royalties on product sales from our current or future collaborative and license arrangements, if established; and
- the timing of regulatory approvals, if any.

If we require additional capital at a time when investment in companies such as ours, or in the marketplace generally, is limited due to the then prevailing market or other conditions, we may have to scale back our operations, eliminate one or more of our research or development programs, or attempt to obtain funds by entering into an agreement with a collaborator or licensee that would result in terms that are not favorable to us or relinquishing our rights in certain of our proprietary technologies or drug candidates. If we are unable to raise funds at the time that we desire or at any time thereafter on acceptable terms, we may not be able to continue to develop our drug candidates. The sale of equity or additional convertible debt securities in the future may be dilutive to our stockholders and may provide for rights, preferences or privileges senior to those of our holders of common stock, and debt financing arrangements may require us to pledge certain assets or enter into covenants that could restrict our operations or our ability to incur further indebtedness.

Our marketable securities and long term investments are subject to risks that could adversely affect our overall financial position.

We invest our cash in accordance with an established internal policy and customarily in instruments, corporate bonds and money market funds which historically have been highly liquid and carried relatively low risk. In recent periods, similar types of investments and money market funds have experienced losses in value or liquidity issues that differ from their historical pattern.

Should a portion of our cash or marketable securities lose value or have their liquidity impaired, it could adversely affect our overall financial position by imperiling our ability to fund our operations and forcing us to seek additional financing sooner than we would otherwise. Such financing, if available, may not be available on commercially attractive terms.

As discussed under “Other Risks Relating to Our Business— We may acquire businesses or assets, form joint ventures or make investments in other companies that may be unsuccessful, divert our management’s attention and harm our operating results and prospects,” any investments that we may make in companies with which we have strategic alliances, such as Agenus and Merus, could result in our recognition of losses on those investments. In addition, to the extent we may seek to sell or otherwise monetize those investments, we may not be able to do so at our desired price or

valuation levels, or at all, due to the limited liquidity of some or all of those investments.

Any loss in value of our long term investments could adversely affect our financial position on the consolidated balance sheets and consolidated statements of operations.

Our current revenues are derived from JAKAFI and ICLUSIG product sales, JAKAVI and OLUMIANT product royalties, collaborations and from licensing our intellectual property. If we are unable to achieve milestones, develop products or renew or enter into new collaborations, our revenues may decrease, and future milestone and royalty payments may not contribute significantly to revenues for several years, and may never result in revenues.

We derived substantially all of our revenues for the year ended December 31, 2019 from JAKAFI and ICLUSIGproduct revenues, JAKAVI and OLUMIANT product royalties and our collaborations and licensing our intellectual property to others. Future revenues from research and development collaborations depend upon continuation of the collaborations, the achievement of milestones and royalties we earn from any future products developed from our research. If we are unable to successfully achieve milestones or our collaborators fail to develop successful products, we will not earn the future revenues contemplated under our collaborative agreements. For example, delays in or other limitations with respect to the approval of baricitinib in the United States for the treatment of moderate-to-severe rheumatoid arthritis, or the failure to obtain such approval, as discussed under "—We depend on our collaborators and licensees for the future development and commercialization of some of our drug candidates. Conflicts may arise between our collaborators and licensees and us, or our collaborators and licensees may choose to terminate their agreements with us, which may adversely affect our business." would affect potential future royalty and milestone and contract revenue. In addition, our revenues are subject to foreign currency exchange rate fluctuations due to the global nature of our operations. To the extent that our non-U.S. source revenues represent a more significant portion of our total revenues, these fluctuations could materially affect our operating results.

RISKS RELATING TO INTELLECTUAL PROPERTY AND LEGAL MATTERS

If we are subject to arbitration, litigation and infringement claims, they could be costly and disrupt our drug discovery and development efforts.

The technology that we use to make and develop our drug products, the technology that we incorporate in our products, and the products we are developing may be subject to claims that they infringe the patents or proprietary rights of others. The success of our drug discovery and development efforts will also depend on our ability to develop new compounds, drugs and technologies without infringing or misappropriating the proprietary rights of others. We are aware of patents and patent applications filed in certain countries claiming intellectual property relating to some of our drug discovery targets and drug candidates. While the validity of issued patents, patentability of pending patent applications and applicability of any of them to our programs are uncertain, if any of these patents are asserted against us or if we choose to license any of these patents, our ability to commercialize our products could be harmed or the potential return to us from any product that may be successfully commercialized could be diminished.

From time to time we have received, and we may in the future receive, notices from third parties offering licenses to technology or alleging patent, trademark, or copyright infringement, claims regarding trade secrets or other contract claims. Receipt of these notices could result in significant costs as a result of the diversion of the attention of management from our drug discovery and development efforts. Parties sending these notices may have brought and in the future may bring litigation against us or seek arbitration relating to contract claims.

We may be involved in future lawsuits or other legal proceedings alleging patent infringement or other intellectual property rights or contract violations. In addition, litigation or other legal proceedings may be necessary to:

- assert claims of infringement;
- enforce our patents or trademarks;
- protect our trade secrets or know-how; or

- determine the enforceability, scope and validity of the proprietary rights of others.

We may be unsuccessful in defending or pursuing these lawsuits, claims or other legal proceedings. Regardless of the outcome, litigation or other legal proceedings can be very costly and can divert management's efforts. An adverse determination may subject us to significant liabilities or require us or our collaborators or licensees to seek licenses to other parties' patents or proprietary rights. We or our collaborators or licensees may also be restricted or prevented from manufacturing or selling a drug or other product that we or they develop. Further, we or our future collaborators or licensees may not be able to obtain any necessary licenses on acceptable terms, if at all. If we are unable to develop non-infringing technology or license technology on a timely basis or on reasonable terms, our business could be harmed.

We may be unable to adequately protect or enforce our proprietary information, which may result in its unauthorized use, a loss of revenue under a collaboration agreement or loss of sales to generic versions of our products or otherwise reduce our ability to compete in developing and commercializing products.

Our business and competitive position depends in significant part upon our ability to protect our proprietary technology, including any drug products that we create. Despite our efforts to protect this information, unauthorized parties may attempt to obtain and use information that we regard as proprietary. For example, one of our collaborators may disclose proprietary information pertaining to our drug discovery efforts. In addition, while we have filed numerous patent applications with respect to ruxolitinib and our drug candidates in the United States and in foreign countries, our patent applications may fail to result in issued patents. In addition, because patent applications can take several years to issue as patents, there may be pending patent applications of others that may later issue as patents that cover some aspect of ruxolitinib and our drug candidates. Our existing patents and any future patents we may obtain may not be broad enough to protect our products or all of the potential uses of our products, or otherwise prevent others from developing competing products or technologies. In addition, our patents may be challenged and invalidated or may fail to provide us with any competitive advantages if, for example, others were first to invent or first to file a patent application for the technologies and products covered by our patents. As noted above under "—Risks Relating to Commercialization of Our Products—Competition for our products could potentially harm our business and result in a decrease in our revenue," a potential generic drug company competitor has challenged certain patents relating to JAKAFI.

Additionally, when we do not control the prosecution, maintenance and enforcement of certain important intellectual property, such as a drug candidate in-licensed to us or subject to a collaboration with a third-party, the protection of the intellectual property rights may not be in our hands. If we do not control the intellectual property rights in-licensed to us with respect to a drug candidate and the entity that controls the intellectual property rights does not adequately protect those rights, our rights may be impaired, which may impact our ability to develop, market and commercialize the in-licensed drug candidate.

Our means of protecting our proprietary rights may not be adequate, and our competitors may:

- independently develop substantially equivalent proprietary information, products and techniques;
- otherwise gain access to our proprietary information; or
- design around patents issued to us or our other intellectual property.

We pursue a policy of having our employees, consultants and advisors execute proprietary information and invention agreements when they begin working for us. However, these agreements may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure. If we fail to maintain trade secret and patent protection, our potential future revenues may be decreased.

If the effective term of our patents is decreased due to changes in the United States patent laws or if we need to refile some of our patent applications, the value of our patent portfolio and the revenues we derive from it may be decreased.

The value of our patents depends, in part, on their duration. A shorter period of patent protection could lessen the value of our rights under any patents that we obtain and may decrease the revenues we derive from our patents. The United

States patent laws provide a term of patent protection of 20 years from the earliest effective filing date of the patent application. Because the time from filing to issuance of biotechnology applications may be more than three years depending on the subject matter, a 20-year patent term from the filing date may result in substantially shorter patent protection.

Additionally, United States patent laws were amended in 2011 with the enactment of the America Invents Act and third parties are now able to challenge the validity of issued U.S. patents through various review proceedings; thus rendering the validity of U.S. patents more uncertain. We may be obligated to participate in review proceedings to determine the validity of our U.S. patents. We cannot predict the ultimate outcome of these proceedings, the conduct of which could result in substantial costs and diversion of our efforts and resources. If we are unsuccessful in these proceedings some or all of our claims in the patents may be narrowed or invalidated and the patent protection for our products and drug candidates in the United States could be substantially shortened. Further, if all of the patents covering one of our products are invalidated, the FDA could approve requests to manufacture a generic version of that product prior to the expiration date of those patents.

Other changes in the United States patent laws or changes in the interpretation of patent laws could diminish the value of our patents or narrow the scope of our patent protection. For example, the Supreme Court of the United States resolved a split among the circuit courts of appeals regarding antitrust challenges to settlements of patent infringement lawsuits under the Hatch-Waxman Act between brand-name drug companies and generic drug companies. The Court rejected the "scope of the patent" test and ruled that settlements involving "reverse payments" from brand-name drug companies to generic drug companies should be analyzed under the rule of reason. This ruling may create uncertainty and make it more difficult to settle patent litigation if a company seeking to manufacture a generic version of one of our products challenges the patents covering that product prior to the expiration date of those patents.

International patent protection is particularly uncertain and costly, and our involvement in opposition proceedings in foreign countries may result in the expenditure of substantial sums and management resources.

Biotechnology and pharmaceutical patent law outside the United States is even more uncertain and costly than in the United States and is currently undergoing review and revision in many countries. Further, the laws of some foreign countries may not protect our intellectual property rights to the same extent as United States laws. For example, certain countries do not grant patent claims that are directed to the treatment of humans. We have participated, and may in the future participate, in opposition proceedings to determine the validity of our foreign patents or our competitors' foreign patents, which could result in substantial costs and diversion of our efforts. Successful challenges to our patent or other intellectual property rights through these proceedings could result in a loss of rights in the relevant jurisdiction and allow third parties to use our proprietary technologies without a license from us or our collaborators, which may also result in loss of future royalty payments. In addition, successful challenges may jeopardize or delay our ability to enter into new collaborations or commercialize potential products, which could harm our business and results of operations.

RISKS RELATING TO INFORMATION TECHNOLOGY AND DATA PRIVACY

Significant disruptions of information technology systems, breaches of data security, or unauthorized disclosures of sensitive data or personally identifiable information or individually identifiable health information could adversely affect our business, and could subject us to liability or reputational damage.

Our business is increasingly dependent on critical, complex, and interdependent information technology (IT) systems, including Internet-based systems, some of which are managed or hosted by third parties, to support business processes as well as internal and external communications. The size and complexity of our IT systems make us potentially vulnerable to IT system breakdowns, malicious intrusion, and computer viruses, which may result in the impairment of our ability to operate our business effectively.

We are continuously evaluating and, where appropriate, enhancing our IT systems to address our planned growth, including to support our planned manufacturing operations. There are inherent costs and risks associated with implementing the enhancements to our IT systems, including potential delays in access to, or errors in, critical business and financial information, substantial capital expenditures, additional administrative time and operating expenses, retention of sufficiently skilled personnel to implement and operate the enhanced systems, demands on management time, and costs

of delays or difficulties in transitioning to the enhanced systems, any of which could harm our business and results of operations. In addition, the implementation of enhancements to our IT systems may not result in productivity improvements at a level that outweighs the costs of implementation, or at all. In addition, our systems and the systems of our third-party providers and collaborators are potentially vulnerable to data security breaches which may expose sensitive data to unauthorized persons or to the public. Such data security breaches could lead to the loss of confidential information, trade secrets or other intellectual property, could lead to the public exposure of personal information (including personally identifiable information or individually identifiable health information) of our employees, clinical trial patients, customers, business partners, and others, could lead to potential identity theft, or could lead to reputational harm. Data security breaches could also result in loss of clinical trial data or damage to the integrity of that data. In addition, the increased use of social media by our employees and contractors could result in inadvertent disclosure of sensitive data or personal information, including but not limited to, confidential information, trade secrets and other intellectual property.

Any such disruption or security breach, as well as any action by us or our employees or contractors that might be inconsistent with the rapidly evolving data privacy and security laws and regulations applicable within the United States and elsewhere where we conduct business, could result in enforcement actions by U.S. states, the U.S. Federal government or foreign governments, liability or sanctions under data privacy laws, including healthcare laws such as HIPAA, that protect certain types of sensitive information, regulatory penalties, other legal proceedings such as but not limited to private litigation, the incurrence of significant remediation costs, disruptions to our development programs, business operations and collaborations, diversion of management efforts and damage to our reputation, which could harm our business and operations. Because of the rapidly moving nature of technology and the increasing sophistication of cybersecurity threats, our measures to prevent, respond to and minimize such risks may be unsuccessful.

In addition, the European Parliament and the Council of the European Union has adopted a comprehensive general data privacy regulation, known as the GDPR, which governs the collection and use of personal data in the European Union. The GDPR, which is wide-ranging in scope, imposes several requirements relating to the consent of the individuals to whom the personal data relates, the information provided to the individuals, the security and confidentiality of the personal data, data breach notification and the use of third party processors in connection with the processing of the personal data. The GDPR also imposes strict rules on the transfer of personal data out of the European Union to the United States, provides an enforcement authority and imposes large penalties for noncompliance, including the potential for fines of up to €20 million or 4% of the annual global revenues of the infringer, whichever is greater. The GDPR and other similar laws or regulations enacted in the United States or other jurisdictions associated with the enhanced protection of certain types of sensitive data, including healthcare data or other personal information, may increase our costs of doing business, and the differing requirements of these laws and regulations can complicate our compliance efforts.

Increasing use of social media could give rise to liability, breaches of data security, or reputational damage.

We and our employees are increasingly utilizing social media tools as a means of communication both internally and externally. Despite our efforts to monitor evolving social media communication guidelines and comply with applicable rules, there is risk that the use of social media by us or our employees to communicate about our products or business may cause us to be found in violation of applicable requirements. In addition, our employees may knowingly or inadvertently make use of social media in ways that may not comply with our social media policy or other legal or contractual requirements, which may give rise to liability, lead to the loss of trade secrets or other intellectual property, or result in public exposure of personal information of our employees, clinical trial patients, customers, and others. Furthermore, negative posts or comments about us or our products in social media could seriously damage our reputation, brand image, and goodwill.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Our global headquarters is in Wilmington, Delaware, which is where our principal drug discovery and development operations are also located. We own two buildings comprising approximately 344,000 square feet of

laboratory and office space at this site. In March 2017, we acquired additional adjacent buildings and in 2019, began demolition of these buildings and construction of a new laboratory building totaling approximately 200,000 square feet. Also in October 2019, we entered into an agreement to purchase additional adjacent property for $50.0 million to expand our global headquarters. Under that agreement, closing of the purchase is subject to certain standard closing conditions, including an initial diligence period and a subsequent approval period.

We lease approximately 112,000 square feet of office space in Chadds Ford, Pennsylvania and approximately 84,000 square feet of additional laboratory and office space in Wilmington, Delaware.

We conduct our European clinical development and commercial operations from our offices in Geneva, Switzerland and Lausanne, Switzerland and our Japanese office is in Tokyo. In February 2018, we signed an agreement to rent a building in Morges, Switzerland for an initial term of 15 years, with multiple options to extend for an additional 20 years. The building will undergo extensive renovations prior to our occupation and, when completed, will serve as our new European headquarters. In July 2018, we purchased a parcel of land in Yverdon-les-Bains, Switzerland upon which we are building a large molecule production facility. Construction commenced in July 2018, with expected completion in the second half of 2020.

Item 3. ***Legal Proceedings***

From time to time, we are party to legal proceedings in the course of our business. The outcome of any such proceedings, regardless of the merits, is inherently uncertain. Legal proceedings, including litigation, government investigations and enforcement actions, can result in significant costs and occupy significant management resources. We do not expect any such current legal proceedings to have a material adverse impact on our business or financial condition.

In December 2018, we received a civil investigative demand from the U.S. Department of Justice ("DOJ") for documents and information relating to our speaker programs and patient assistance programs, including our support of non-profit organizations that provide financial assistance to eligible patients. We have cooperated with this inquiry. In November 2019, the *qui tam* complaint underlying the DOJ inquiry was unsealed ("Complaint"), at which time we learned that a former employee whom we had terminated had made certain allegations relating to the programs described above. We then became aware that the DOJ had not intervened in the *qui tam* action, and, to our knowledge, the DOJ has not intervened to date. We filed an answer to the Complaint on January 22, 2020, and the action is proceeding. We are and intend to continue defending ourselves vigorously against these allegations.

Item 4. ***Mine Safety Disclosures***

Not applicable.

Information about our Executive Officers

Our executive officers are as follows:

Hervé Hoppenot, age 60, joined Incyte as President and Chief Executive Officer and a Director, in January 2014 and was appointed Chairman of the Board in May 2015. Mr. Hoppenot served as the President of Novartis Oncology, Novartis Pharmaceuticals Corporation, the U.S. subsidiary of Novartis AG, a pharmaceutical company, from January 2010 to January 2014. Prior to that, Mr. Hoppenot served in other executive positions at Novartis Pharmaceuticals Corporation, serving from September 2006 to January 2010 as Executive Vice President, Chief Commercial Officer of Novartis Oncology and Head of Global Product Strategy & Scientific Development of Novartis Pharmaceuticals Corporation and from 2003 to September 2006 as Senior Vice President, Head of Global Marketing of Novartis Oncology. Prior to joining Novartis, Mr. Hoppenot served in various increasingly senior roles at Aventis S.A. (formerly Rhône-Poulenc S.A.), a pharmaceutical company, including as Vice President Oncology US of Aventis Pharmaceuticals, Inc. from 2000 to 2003 and Vice President US Oncology Operations of Rhone-Poulenc Rorer Pharmaceuticals, Inc. from 1998 to 2000. Mr. Hoppenot holds a Diploma from ESSEC International Business School. Mr. Hoppenot is also a director of Cellectis S.A.

Dashyant Dhanak, age 59, joined Incyte in December 2018 as Executive Vice President, Chief Scientific Officer. Prior to joining Incyte, Dr. Dhanak served as Vice President and Head of Discovery Sciences of Janssen Research & Development, LLC, a wholly-owned subsidiary of Johnson & Johnson, a pharmaceutical company, from 2013 until November 2018. Prior to his tenure at Janssen, Dr. Dhanak spent 25 years at GlaxoSmithKline, a pharmaceutical company, in positions of increased responsibility across multiple disease areas, including his last position as Vice President and Head of the Cancer Epigenetics Discovery Performance Unit. Dr. Dhanak received a B.S. in Chemistry from the University of Manchester Institute of Science and Technology and his Ph.D. from the University of London. He completed his postdoctoral research in natural product synthesis at Northwestern University.

Jonathan E. Dickinson, age 52, has served as Executive Vice President and General Manager, Europe since June 2019 and joined Incyte as Senior Vice President and General Manager, Europe in June 2016. Mr. Dickinson joined Incyte from ARIAD Pharmaceuticals (Luxembourg) S.à.r.l, the parent company of ARIAD Pharmaceuticals, Inc.'s European subsidiaries responsible for the development and commercialization of Iclusig in the European Union and other countries, where he most recently held the position of Senior Vice President and General Manager, Europe. Prior to joining ARIAD in February 2013, Mr. Dickinson served as European oncology brand lead at Bristol-Myers Squibb, a pharmaceutical company, and before that, he held several key leadership positions, including lifecycle leader, during his 13-year tenure at Hoffmann-La Roche, a pharmaceutical company. At Roche, he had assignments both in the United States and Switzerland that included leadership roles for Roche's three leading oncology medicines. Mr. Dickinson began his career at Novartis, where he held commercial roles in its oncology and endocrinology businesses, including medical sales, product manager and business director in the United Kingdom. Mr. Dickinson received a B.S. in Genetics and an M.B.A. from the University of Nottingham.

Barry P. Flannelly, age 62, has served as Executive Vice President and General Manager US since June 2015 and joined Incyte as Executive Vice President, Business Development and Strategic Planning in August 2014. Prior to joining Incyte, he served as Chief Executive Officer of OSS Healthcare Inc., a biotechnology start-up company, from August 2013 to July 2014. He served as Vice President, Global Product Strategy and Commercial Planning of Nektar Therapeutics, a biopharmaceutical company, from April 2011 until April 2013, and as Senior Vice President, Commercial, of Onyx Pharmaceuticals, Inc., a biopharmaceutical company, from August 2008 until January 2011. Prior thereto, Dr. Flannelly held key positions at biopharmaceutical and pharmaceutical companies such as Abraxis BioScience, Inc. and Novartis. Dr. Flannelly earned his doctorate in pharmacy from the University of Maryland, School of Pharmacy, his master's degree in business administration from the University of Baltimore, and his B.S. degree in Pharmacy from Massachusetts College of Pharmacy.

Vijay Iyengar, age 47, joined Incyte in May 2016 as Executive Vice President, Global Strategy and Corporate Development. Prior to joining Incyte, from April 2014 to April 2016, he was the President of Genoptix Corporation, a Novartis Company. From December 2011 to March 2014, he was the Vice President and Rare Diseases Franchise Head at Novartis Oncology and from July 2009 to December 2011, he was the Vice President and Oncology General Manager of Novartis Greece. From October 2007 to June 2009, he was the Global Brand Executive Director at Novartis Pharmaceuticals, and from January 2006 to October 2007, he was the Global Brand Director, Oncology at Novartis Pharmaceuticals. Dr. Iyengar received his B.S. degree in Biology from Stanford University and earned his M.D. from Harvard Medical School.

Michael Morrissey, age 56, has served as Executive Vice President and Head of Global Technical Operations since June 2019 and joined Incyte in January 2016 as Corporate Senior Vice President and Head of Global Technical Operations. He has more than 30 years of global pharmaceutical industry experience through his prior positions in Research and Development, Quality Assurance, and Manufacturing. From February 2005 until joining Incyte, Mr. Morrissey worked at Celgene International, a subsidiary of Celgene Corporation, a biopharmaceutical company, where he last served as Corporate Vice President, Head of International Technical Operations. Prior to Celgene, he worked for Roche for 15 years in various positions. Mr. Morrissey received a B.Sc. in Physics and Applied Mathematics from the University of London, United Kingdom.

Maria E. Pasquale, age 54, joined Incyte in April 2018 as Executive Vice President and General Counsel. Prior to joining Incyte, Ms. Pasquale joined Incyte from Celgene Corporation, a biopharmaceutical company, where for 17 years she held positions of increasing levels of responsibility, including Chief Counsel; Senior Vice President, Legal and Deputy

General Counsel and Assistant Corporate Secretary, and, most recently, Executive Vice President and Global Chief Compliance Officer. Prior to her tenure at Celgene, Ms. Pasquale spent a decade supporting pharmaceutical clients as a global patent and litigation attorney at Pennie & Edmonds LLP in New York (now part of Jones Day). Before her career in law, Ms. Pasquale was an Assistant Research Scientist at the Institute for Basic Research and the Cold Spring Harbor Laboratory. Ms. Pasquale holds a J.D. from Brooklyn Law School and a B.S. in biochemistry from the State University of New York at Stony Brook.

Christiana Stamoulis, age 49, joined Incyte in February 2019 as Executive Vice President and Chief Financial Officer. Prior to joining Incyte, she served as President from February 2018 until January 2019 and Chief Financial Officer from January 2015 to January 2019 of Unum Therapeutics Inc., a biopharmaceutical company. From January 2014 until she joined Unum, Ms. Stamoulis was an independent advisor to biopharmaceutical companies. From 2009 until December 2013, Ms. Stamoulis was a Senior Vice President of Corporate Strategy and Business Development at Vertex Pharmaceuticals, Inc., a biopharmaceutical company. Prior to joining Vertex, Ms. Stamoulis spent nearly 15 years in the investment banking and management consulting industries. She was a Managing Director in the Investment Banking division of Citigroup and, prior to that, she was a senior investment banker in the Healthcare Investment Banking Group of Goldman, Sachs & Co., where she spent the majority of her investment banking career. Ms. Stamoulis started her career as a strategy consultant at The Boston Consulting Group. Ms. Stamoulis holds two B.S. degrees from the Massachusetts Institute of Technology (MIT) and an M.B.A. from the MIT Sloan School of Management.

Steven Stein, age 53, has served as Executive Vice President and Chief Medical Officer since May 2016 and joined Incyte as Senior Vice President and Chief Medical Officer in March 2015. Prior to joining Incyte, from May 2011 to February 2015, he was the Senior Vice President, US Clinical Development & Medical Affairs at Novartis Pharmaceuticals. From February 2004 to April 2011, Dr. Stein was the Vice President, Global Oncology, Clinical Development and the Head of Medicines Development for Hematology and Supportive Care for GlaxoSmithKline. Dr. Stein held a post-doctoral fellowship in hematology/oncology at the University of Pennsylvania from 1998 to 2001, and earned his M.D. from the University of Witwatersrand in Johannesburg, South Africa in 1990.

Paula J. Swain, age 62, has served as Executive Vice President, Human Resources since August 2002 and joined Incyte as Senior Vice President of Human Resources in January 2002. Ms. Swain served as Senior Vice President of Human Resources at Bristol-Myers Squibb Company from October 2001 to January 2002, after it acquired DuPont Pharmaceuticals Company. From July 1998 to October 2001, Ms. Swain was Senior Vice President of Human Resources at DuPont Pharmaceuticals. From October 1992 to July 1998, Ms. Swain held a variety of human resources positions of increasing responsibility at DuPont Pharmaceuticals. Ms. Swain received her B.A. in Psychology and Industrial Relations from Rockhurst University.

Wenqing Yao, age 57, has served as Executive Vice President, Head of Discovery Chemistry since October 2014. Dr. Yao joined Incyte as Director, Chemistry in February 2002 and held roles of increasing responsibility at Incyte. Prior to joining Incyte, Dr. Yao held scientific research positions with DuPont Pharmaceuticals and Bristol-Myers Squibb Company from 1996 to 2002. Dr. Yao received his B.S. in chemistry from Xuzhou Normal University, his M.S. in organic chemistry from NanKai University and his Ph.D. in organic/medicinal chemistry from the University of Pennsylvania.

PART II

Item 5. ***Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Our common stock, $.001 par value per share, is traded on The Nasdaq Global Select Market under the symbol "INCY." As of December 31, 2019, our common stock was held by 128 stockholders of record. We have never declared or paid dividends on our capital stock and do not anticipate paying any dividends in the foreseeable future.

Item 6. ***Selected Financial Data***

Selected Consolidated Financial Data
(in thousands, except per share data)

The data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 and the Consolidated Financial Statements and related Notes included in Item 8 of this Report.

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Consolidated Statements of Operations Data:					
Revenues:					
Product revenues, net[1]	$ 1,774,922	$ 1,466,900	$ 1,200,312	$ 882,404	$ 601,015
Product royalty revenues[2]	306,337	234,780	160,791	110,711	74,821
Milestone and contract revenues[3]	77,500	180,000	175,000	112,512	77,857
Other revenues	—	203	113	92	58
Total revenues	2,158,759	1,881,883	1,536,216	1,105,719	753,751
Costs and expenses:					
Cost of product revenues (including definite-lived intangible amortization)	114,249	94,123	79,479	58,187	26,972
Research and development[4]	1,154,111	1,197,957	1,326,134	581,861	479,514
Selling, general and administrative[4]	468,711	434,407	366,286	303,251	196,614
Change in fair value of acquisition-related contingent consideration	19,682	26,173	7,704	17,422	—
Total costs and expenses	1,756,753	1,752,660	1,779,603	960,721	703,100
Income (loss) from operations	402,006	129,223	(243,387)	144,998	50,651
Other income (expense), net[4]	52,182	31,760	17,153	4,412	7,089
Interest expense	(1,855)	(1,543)	(6,900)	(38,745)	(45,603)
Unrealized gain (loss) on long term investment	34,458	(44,093)	(24,275)	(3,261)	(4,581)
Expense related to senior note conversions	—	—	(54,881)	—	—
Income (loss) before provision for income taxes	486,791	115,347	(312,290)	107,404	7,556
Provision for income taxes	39,885	5,854	852	3,182	1,025
Net income (loss)	$ 446,906	$ 109,493	$ (313,142)	$ 104,222	$ 6,531
Net income (loss) per share:					
Basic	$ 2.08	$ 0.52	$ (1.53)	$ 0.55	$ 0.04
Diluted	$ 2.05	$ 0.51	$ (1.53)	$ 0.54	$ 0.03
Shares used in computing net income (loss) per share:					
Basic	214,913	212,383	204,580	187,873	179,601
Diluted	217,657	215,635	204,580	194,125	187,302

(1) 2019, 2018, 2017 and 2016 product revenues, net, relate to our product sales of JAKAFI and product sales of ICLUSIG from the date of acquisition on June 1, 2016. 2015 product revenues, net, relate to our product sales of JAKAFI.

(2) 2019, 2018 and 2017 product royalty revenues relate to Novartis net sales of JAKAVI outside of the United States and Lilly net sales of OLUMIANT outside of the United States. 2016 and 2015 product royalty revenues relate to Novartis net sales of JAKAVI outside the United States.

(3) 2019 milestone and contract revenues relate to our collaborative research and license agreements with Innovent and Zai Lab. 2018, 2017, 2016 and 2015 milestone and contract revenues relate to our collaborative research and license agreements with Novartis and Lilly.

(4) Upon the retrospective adoption of ASU No. 2017-07 on January 1, 2018, the presentation of other components of net periodic benefit cost were reclassed out of operating income and into other income (expense), net for the periods presented, as applicable.

	December 31,				
	2019	2018	2017	2016	2015
Consolidated Balance Sheets Data:					
Cash, cash equivalents, and marketable securities	$ 2,117,554	$ 1,438,323	$ 1,169,645	$ 808,546	$ 707,783
Working capital	1,968,148	1,406,977	1,129,458	720,677	674,368
Total assets[(1)]	3,426,750	2,645,762	2,302,582	1,638,597	1,007,440
Convertible senior notes	18,300	17,434	24,001	651,481	619,893
Stockholders' equity	2,598,406	1,925,967	1,630,629	419,467	171,155

(1) On January 1, 2019, we adopted ASU No. 2016-02 which required us to recognize lease right-of-use assets and corresponding lease liabilities on the consolidated balance sheet. No prior periods were restated as further discussed in Note 1 of Notes to the Consolidated Financial Statements.

Item 7. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with "Selected Consolidated Financial Data" and the Consolidated Financial Statements and related Notes included elsewhere in this Report.

A discussion of our financial performance for the year ended December 31, 2019 as compared to the year ended December 31, 2018 appears below under the captions "Results of Operations" and "Liquidity and Capital Resources." A discussion of our financial performance for the year ended December 31, 2018 compared to the year ended December 31, 2017 can be found under the same captions in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on February 14, 2019, which is available free of charge on the SEC's website at *www.sec.gov* and our Investor Relations website at *investor.incyte.com/financial-information/annual-reports*. These website addresses are intended to be inactive, textual references only. None of the materials on, or accessible through, these websites are part of this report or are incorporated by reference herein.

Overview

Incyte is a biopharmaceutical company focused on the discovery, development and commercialization of proprietary therapeutics. Our global headquarters is located in Wilmington, Delaware. We conduct our European clinical development and commercial operations from our offices in Geneva, Switzerland and Lausanne, Switzerland, and we conduct our Japanese operations from our office in Tokyo.

JAKAFI (ruxolitinib) is our first product to be approved for sale in the United States. It is an oral JAK1 and JAK2 inhibitor and was approved by the U.S. Food and Drug Administration (FDA) in November 2011 for the treatment of patients with intermediate or high-risk myelofibrosis, in December 2014 for the treatment of patients with polycythemia vera who have had an inadequate response to or are intolerant of hydroxyurea and in May 2019 for the treatment of steroid-refractory acute graft-versus-host disease (GVHD) in adult and pediatric patients 12 years and older. Myelofibrosis and polycythemia vera are both rare blood cancers, and GVHD is an adverse immune response to an allogeneic hematopoietic stem cell transplant.

In June 2016, we acquired from ARIAD Pharmaceuticals, Inc. (ARIAD) all of the outstanding shares of ARIAD Pharmaceuticals (Luxembourg) S.à.r.l., the parent company of ARIAD's European subsidiaries responsible for the

development and commercialization of ICLUSIG in the European Union and other countries, including Switzerland, Norway, Turkey, Israel and Russia. We obtained an exclusive license to develop and commercialize ICLUSIG in those countries. ICLUSIG is approved in the European Union for the treatment of patients with chronic myeloid leukemia and Philadelphia-positive acute lymphoblastic leukemia who are resistant to or intolerant of certain second-generation BCR-ABL inhibitors and all patients who have the T3151 mutation.

Under our collaboration agreement with Novartis International Pharmaceutical Ltd., Novartis received exclusive development and commercialization rights to ruxolitinib outside of the United States for all hematologic and oncologic indications and sells ruxolitinib outside of the United States under the name JAKAVI. In April 2016, we amended this agreement to provide that Novartis has exclusive research, development and commercialization rights outside of the United States to ruxolitinib (excluding topical formulations) in the GVHD field.

Under our collaboration agreement with Eli Lilly and Company, Lilly received exclusive worldwide development and commercialization rights to our second oral JAK1 and JAK2 inhibitor, baricitinib, for inflammatory and autoimmune diseases. In January 2016, Lilly submitted a New Drug Application (NDA) to the FDA and a Marketing Authorization Application (MAA) to the European Medicines Agency for baricitinib as treatment for rheumatoid arthritis. In February 2017, we and Lilly announced that the European Commission approved baricitinib as OLUMIANT for the treatment of moderate-to-severe rheumatoid arthritis in adult patients who have responded inadequately to, or who are intolerant to, one or more disease-modifying antirheumatic drugs. In July 2017, Japan's Ministry of Health, Labor and Welfare granted marketing approval for OLUMIANT for the treatment of rheumatoid arthritis in patients with inadequate response to standard-of-care therapies. In June 2018, the FDA approved the 2mg dose of OLUMIANT for the treatment of adults with moderately-to-severely active rheumatoid arthritis who have had an inadequate response to one or more tumor necrosis factor inhibitor therapies.

Since we began our drug-discovery and development activities in early 2002, we have filed numerous Investigational New Drug (IND) applications and progressed multiple internally developed proprietary compounds into clinical development. Two New Drug Applications (NDAs) seeking marketing approval for drug candidates discovered by Incyte are currently under review by the FDA; the NDA for pemigatinib was submitted by Incyte in September 2019 and the NDA for capmatinib was submitted by Novartis in December 2019.

License Agreements and Business Relationships

We establish business relationships, including collaborative arrangements with other companies and medical research institutions to assist in the clinical development and/or commercialization of certain of our drugs and drug candidates and to provide support for our research programs. We also evaluate opportunities for acquiring products or rights to products and technologies that are complementary to our business from other companies and medical research institutions.

Below is a brief description of our significant business relationships and collaborations and related license agreements that expand our pipeline and provide us with certain rights to existing and potential new products and technologies.

Novartis

In November 2009, we entered into a Collaboration and License Agreement with Novartis. Under the terms of the agreement, Novartis received exclusive development and commercialization rights outside of the United States to ruxolitinib and certain back-up compounds for hematologic and oncology indications, including all hematological malignancies, solid tumors and myeloproliferative diseases. We retained exclusive development and commercialization rights to JAKAFI (ruxolitinib) in the United States and in certain other indications. Novartis also received worldwide exclusive development and commercialization rights to our MET inhibitor compound capmatinib and certain back-up compounds in all indications. We retained options to co-develop and to co-promote capmatinib in the United States.

Under this agreement, we received an upfront payment and immediate milestone payment totaling $210.0 million and were initially eligible to receive additional payments of up to approximately $1.2 billion if defined development and

commercialization milestones are achieved. We are also eligible to receive tiered, double-digit royalties ranging from the upper-teens to the mid-twenties percent on future ruxolitinib net sales outside of the United States, and tiered, worldwide royalties on future capmatinib net sales that range from 12% to 14%. In addition, Novartis has received reimbursement and pricing approval for ruxolitinib in a specified number of countries, and we are now obligated to pay to Novartis tiered royalties in the low single-digits on future ruxolitinib net sales within the United States. Each company is responsible for costs relating to the development and commercialization of ruxolitinib in its respective territories, with costs of collaborative studies shared equally. Novartis is also responsible for all costs relating to the development and commercialization of capmatinib.

In April 2016, we amended this agreement to provide that Novartis has exclusive research, development and commercialization rights outside of the United States to ruxolitinib (excluding topical formulations) in the GVHD field. Under this amendment, we received a $5.0 million payment in exchange for the development and commercialization rights to ruxolitinib in GVHD outside of the United States and became eligible to receive up to $75.0 million of additional potential development and regulatory milestones relating to GVHD. In March 2017, we recognized a $25.0 million milestone for the first patient first visit in a GVHD study and in December 2017, we recognized a $40.0 million milestone for Novartis achieving annual net sales of a JAK licensed product of $600.0 million. In December 2018, we recognized a $60.0 million milestone for Novartis achieving annual net sales of a JAK licensed product of $900.0 million.

The Novartis agreement will continue on a program-by-program basis until Novartis has no royalty payment obligations with respect to such program or, if earlier, the termination of the agreement or any program in accordance with the terms of the agreement. Royalties are payable by Novartis on a product-by-product and country-by-country basis until the latest to occur of (i) the expiration of the last valid claim of the licensed patent rights covering the licensed product in the relevant country, (ii) the expiration of regulatory exclusivity for the licensed product in such country and (iii) a specified period from first commercial sale in such country of the licensed product by Novartis or its affiliates or sublicensees. The agreement may be terminated in its entirety or on a program-by-program basis by Novartis for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach.

Lilly

In December 2009, we entered into a License, Development and Commercialization Agreement with Lilly. Under the terms of the agreement, Lilly received exclusive worldwide development and commercialization rights to baricitinib and certain back-up compounds for inflammatory and autoimmune diseases. We received an initial payment of $90.0 million, and were initially eligible to receive additional payments of up to $665.0 million based on the achievement of defined development, regulatory and commercialization milestones.

We retained options to co-develop our JAK1/JAK2 inhibitors with Lilly on a compound-by-compound and indication-by-indication basis. Lilly is responsible for all costs relating to the development and commercialization of the compounds unless we elect to co-develop any compounds or indications. If we elect to co-develop any compounds and/or indications, we would be responsible for funding 30% of the associated future global development costs from the initiation of a Phase IIb trial through regulatory approval, including post-launch studies required by a regulatory authority. We would receive an incremental royalty rate increase across all tiers resulting in effective royalty rates ranging up to the high twenties on potential future global net sales for compounds and/or indications that we elect to co-develop. For indications that we elect not to co-develop, we would receive tiered, double-digit royalty payments on future global net sales with rates ranging up to 20% if the product is successfully commercialized. If we have started co-development funding for any indication, we can at any time opt out and stop future co-development cost sharing. If we elect to do this we would still be eligible for our base royalties plus an incremental pro-rated royalty commensurate with our contribution to the total co-development cost for those indications for which we co-funded. We previously had retained an option to co-promote products in the United States but, in March 2016, we waived our co-promotion option as part of an amendment to the agreement.

In July 2010, we elected to co-develop baricitinib with Lilly in rheumatoid arthritis, and subsequently in several additional indications, and became responsible for funding 30% of the associated global development costs for such indications from the initiation of the Phase IIb trial through regulatory approval, including post-launch studies required by a regulatory authority. In April 2019, we elected to end additional co-funding of the development of baricitinib in all

indications, effective as of January 1, 2019. Pursuant to the terms of the Lilly agreement, we will continue to receive base tiered royalties on global net sales of OLUMIANT in all indications, as well as pro-rated incremental royalties, as described above.

In March 2016, we entered into an amendment to the agreement with Lilly that allows us to engage in the development and commercialization of ruxolitinib in the GVHD field. Upon execution of the amendment, we paid Lilly an upfront payment of $35.0 million and Lilly is eligible to receive up to $40.0 million in regulatory milestone payments relating to ruxolitinib in the GVHD field. In May 2019, the approval of JAKAFI in steroid-refractory acute GVHD triggered a $20.0 million milestone payment to Lilly.

In February 2017, the European Commission announced the approval of baricitinib as OLUMIANT, triggering a $65.0 million milestone payment from Lilly. In July 2017, Japan's MHLW granted marketing approval for OLUMIANT, triggering a $15.0 million milestone payment from Lilly. In December 2017, we recognized a $30.0 million milestone payment for the first patient treated in the atopic dermatitis Phase III program for baricitinib. In June 2018, the FDA approved the 2mg dose of OLUMIANT, triggering a $100.0 million milestone payment from Lilly. In September 2018, we recognized a $20.0 million milestone payment for the first patient treated in the systemic lupus erythematosus Phase III program for baricitinib.

The Lilly agreement will continue until Lilly no longer has any royalty payment obligations or, if earlier, the termination of the agreement in accordance with its terms. Royalties are payable by Lilly on a product-by-product and country-by-country basis until the latest to occur of (i) the expiration of the last valid claim of the licensed patent rights covering the licensed product in the relevant country, (ii) the expiration of regulatory exclusivity for the licensed product in such country and (iii) a specified period from first commercial sale in such country of the licensed product by Lilly or its affiliates or sublicensees. The agreement may be terminated by Lilly for convenience, and may also be terminated under certain other circumstances, including material breach.

Agenus

In January 2015, we entered into a License, Development and Commercialization Agreement with Agenus Inc. and its wholly-owned subsidiary, 4-Antibody AG (now known as Agenus Switzerland Inc.), which we collectively refer to as Agenus. Under this agreement, the parties have agreed to collaborate on the discovery of novel immuno-therapeutics using Agenus' antibody discovery platforms. In February 2017, we and Agenus amended this agreement.

Under the terms of this agreement, as amended, we received exclusive worldwide development and commercialization rights to four checkpoint modulators directed against GITR, OX40, LAG-3 and TIM-3. In addition to the initial four program targets, we and Agenus have the option to jointly nominate and pursue additional targets within the framework of the collaboration, and in November 2015, three more targets were added. Targets may be designated profit-share programs, where all costs and profits are shared equally by us and Agenus, or royalty-bearing programs, where we are responsible for all costs associated with discovery, preclinical, clinical development and commercialization activities. The programs relating to GITR and OX40 and two of the undisclosed targets were profit-share programs until February 2017, while the other targets currently under collaboration are royalty-bearing programs. The February 2017 amendment converted the programs relating to GITR and OX40 to royalty-bearing programs and removed from the collaboration the profit-share programs relating to the two undisclosed targets, with one reverting to us and one reverting to Agenus. Should any of those removed programs be successfully developed by a party, the other party will be eligible to receive the same milestone payments as the royalty-bearing programs and royalties at a 15% rate on global net sales. There are currently no profit-share programs. For each royalty-bearing product other than GITR and OX40, Agenus will be eligible to receive tiered royalties on global net sales ranging from 6% to 12%. For GITR and OX40, Agenus will be eligible to receive 15% royalties on global net sales. Under the February 2017 amendment, we paid Agenus $20.0 million in accelerated milestones relating to the clinical development of the GITR and OX40 programs. Agenus is eligible to receive up to an additional $510.0 million in future contingent development, regulatory and commercialization milestones across all programs in the collaboration. The agreement may be terminated by us for convenience upon 12 months' notice and may also be terminated under certain other circumstances, including material breach.

Takeda (ARIAD)

In June 2016, we acquired from ARIAD Pharmaceuticals, Inc. all of the outstanding shares of ARIAD Pharmaceuticals (Luxembourg) S.à.r.l., the parent company of ARIAD's European subsidiaries responsible for the development and commercialization of ICLUSIG in the European Union and other countries. We obtained an exclusive license to develop and commercialize ICLUSIG in Europe and other select countries. ARIAD was subsequently acquired by Takeda Pharmaceutical Company Limited in 2017. As such, Takeda will be eligible to receive from us tiered royalties on net sales of ICLUSIG in our territory and up to $135.0 million in potential future oncology development and regulatory approval milestone payments, together with additional milestone payments for non-oncology indications, if approved, in our territory.

Merus

In December 2016, we entered into a Collaboration and License Agreement with Merus N.V. Under this agreement, which became effective in January 2017, the parties have agreed to collaborate with respect to the research, discovery and development of bispecific antibodies utilizing Merus' technology platform. The collaboration encompasses up to eleven independent programs.

The most advanced collaboration program is MCLA-145, a bispecific antibody targeting PD-L1 and CD137, for which we received exclusive development and commercialization rights outside of the United States. Merus retained exclusive development and commercialization rights in the United States to MCLA-145. Each party will share equally the costs of mutually agreed global development activities for MCLA-145, and fund itself any independent development activities in its territory. Merus will be responsible for commercializing MCLA-145 in the United States and we will be responsible for commercializing it outside of the United States.

In addition to receiving rights to MCLA-145 outside of the United States, we received worldwide exclusive development and commercialization rights to up to ten additional programs. Of these ten additional programs, Merus retained the option, subject to certain conditions, to co-fund development of up to two such programs. If Merus exercises its co-funding option for a program, Merus would be responsible for funding 35% of the associated future global development costs and, for certain of such programs, would be responsible for reimbursing us for certain development costs incurred prior to the option exercise. Merus will also have the right to participate in a specified proportion of detailing activities in the United States for one of those co-developed programs. All costs related to the co-funded collaboration programs are subject to joint research and development plans and overseen by a joint development committee, but we will have final determination as to such plans in cases of dispute. We will be responsible for all research, development and commercialization costs relating to all other programs.

In February 2017, we paid Merus an upfront non-refundable payment of $120.0 million. For each program as to which Merus does not have commercialization or development co-funding rights, Merus will be eligible to receive up to $100.0 million in future contingent development and regulatory milestones, and up to $250.0 million in commercialization milestones as well as tiered royalties ranging from 6% to 10% of global net sales. For each program as to which Merus exercises its option to co-fund development, Merus will be eligible to receive a 50% share of profits (or sustain 50% of any losses) in the United States and be eligible to receive tiered royalties ranging from 6% to 10% of net sales of products outside of the United States. If Merus opts to cease co-funding a program as to which it exercised its co-development option, then Merus will no longer receive a share of profits in the United States but will be eligible to receive the same milestones from the co-funding termination date and the same tiered royalties described above with respect to programs where Merus does not have a right to co-fund development and, depending on the stage at which Merus chose to cease co-funding development costs, Merus will be eligible to receive additional royalties ranging up to 4% of net sales in the United States. For MCLA-145, we and Merus will each be eligible to receive tiered royalties on net sales in the other party's territory at rates ranging from 6% to 10%.

The Merus agreement will continue on a program-by-program basis until we have no royalty payment obligations with respect to such program or, if earlier, the termination of the agreement or any program in accordance with the terms of the agreement. The agreement may be terminated in its entirety or on a program-by-program basis by us for convenience. The agreement may also be terminated by either party under certain other circumstances, including material

breach, as set forth in the agreement. If the agreement is terminated with respect to one or more programs, all rights in the terminated programs revert to Merus, subject to payment to us of a reverse royalty of up to 4% on sales of future products, if Merus elects to pursue development and commercialization of products arising from the terminated programs.

Calithera

In January 2017, we entered into a Collaboration and License Agreement with Calithera Biosciences, Inc. Under this agreement, we received an exclusive, worldwide license to develop and commercialize small molecule arginase inhibitors, including INCB01158 (CB-1158), which is currently in Phase I clinical trials, for hematology and oncology indications. We have agreed to co-fund 70% of the global development costs for the development of the licensed products for hematology and oncology indications. Calithera will have the right to conduct certain clinical development under the collaboration, including combination studies of a licensed product with a proprietary compound of Calithera. We will be entitled to 60% of the profits and losses from net sales of licensed product in the United States, and Calithera will have the right to co-detail licensed products in the United States, and we have agreed to pay Calithera tiered royalties ranging from the low to mid-double digits on net sales of licensed products outside the United States. Calithera may opt out of its co-funding obligation, in which case the U.S. profit sharing will no longer be in effect, and we have agreed to pay Calithera tiered royalties ranging from the low to mid-double digits on net sales of licensed products both in the United States and outside the United States, and additional royalties to reimburse Calithera for previously incurred development costs.

Calithera retains rights to certain arginase inhibitors that are not part of the collaboration for specific orphan indications outside of hematology and oncology, subject to our rights to negotiate a license for any such programs under specified circumstances if Calithera elects to out-license them.

In January 2017, we paid Calithera an upfront license fee of $45.0 million and have agreed to pay potential development, regulatory and sales milestone payments of over $430.0 million if the profit share is in effect, or $750.0 million if the profit share terminates.

The Calithera agreement will continue on a product-by-product and country-by-country basis for so long as we are developing or commercializing products in the United States (if the parties are sharing profits in the United States) and until we have no further royalty payment obligations, unless earlier terminated according to the terms of the agreement. The agreement may be terminated in its entirety or on a product-by-product and/or a country-by-country basis by us for convenience. The agreement may also be terminated by us for Calithera's uncured material breach, by Calithera for our uncured material breach and by either party for bankruptcy or patent challenge. If the agreement is terminated early with respect to one or more products or countries, all rights in the terminated products and countries revert to Calithera.

MacroGenics

In October 2017, we entered into a Global Collaboration and License Agreement with MacroGenics. Under this agreement, we received exclusive development and commercialization rights worldwide to MacroGenics' INCMGA0012, an investigational monoclonal antibody that inhibits PD-1. Except as set forth in the succeeding sentence, we will have sole authority over and bear all costs and expenses in connection with the development and commercialization of INCMGA0012 in all indications, whether as a monotherapy or as part of a combination regimen. MacroGenics has retained the right to develop and commercialize, at its cost and expense, its pipeline assets in combination with INCMGA0012. In addition, MacroGenics has the right to manufacture a portion of both companies' global clinical and commercial supply needs of INCMGA0012. In 2017, we paid MacroGenics an upfront payment of $150.0 million and in 2018, we paid MacroGenics milestones totaling $15.0 million. MacroGenics will be eligible to receive up to an additional $405.0 million in future contingent development and regulatory milestones, and up to $330.0 million in commercial milestones as well as tiered royalties ranging from 15% to 24% of global net sales.

The MacroGenics agreement will continue until we are no longer commercializing, developing or manufacturing INCMGA0012 or, if earlier, the termination of the agreement in accordance with its terms. The agreement may be terminated in its entirety or on a licensed product by licensed product basis by us for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach, as set forth in the agreement.

Syros

In January 2018, we entered into a target discovery, research collaboration and option agreement with Syros Pharmaceuticals, Inc. Under this agreement, Syros will use its proprietary gene control platform to identify novel therapeutic targets with a focus in myeloproliferative neoplasms and we have received options to obtain exclusive worldwide rights to intellectual property resulting from the collaboration for up to seven validated targets. We will have exclusive worldwide rights to develop and commercialize any therapies under the collaboration that modulate those validated targets. We paid Syros $2.5 million in cash for access to proprietary technology and $7.5 million in cash for research and development services. We have agreed to pay Syros up to $54.0 million in target selection and option exercise fees should we decide to exercise all of our options under the agreement. For products resulting from the collaboration against each of the seven selected and validated targets, we have agreed to pay up to $50.0 million in potential development and regulatory milestones and up to $65.0 million in potential commercial milestones. Syros is also eligible to receive low single-digit royalties on net sales of products resulting from the collaboration.

Innovent

In December 2018, we entered into a research collaboration and licensing agreement with Innovent Biologics, Inc. Under the terms of this agreement, Innovent received exclusive development and commercialization rights to our clinical-stage product candidates pemigatinib, itacitinib and parsaclisib in hematology and oncology in mainland China, Hong Kong, Macau and Taiwan. In January 2019, we recognized an upfront payment under this agreement of $40.0 million upon our transfer of the intellectual property related to the clinical-stage product candidates to Innovent. In addition, we are eligible to receive $20.0 million in connection with the first related IND filing in China, up to $129.0 million in potential development and regulatory milestones, and up to $202.5 million in potential commercial milestones. We are also eligible to receive tiered royalties from the high-teens to the low-twenties on future sales of products resulting from the collaboration. We retain an option to assist in the promotion of the three product candidates in the Innovent territories. In June 2019, we recognized the $20.0 million milestone for the first related IND filing in China.

Zai Lab

In July 2019, we entered into a collaboration and license agreement with a subsidiary of Zai Lab Limited. Under the terms of this agreement, Zai Lab received development and exclusive commercialization rights to INCMGA0012 in hematology and oncology in mainland China, Hong Kong, Macau and Taiwan. We recognized an upfront payment under this agreement of $17.5 million in August 2019 upon our transfer of technology related to the licensed product candidate to Zai Lab, and are eligible to receive an additional $60.0 million in potential development, regulatory and commercial milestones, as well as tiered royalties from the low to mid-twenties. We also retain an option to assist in the promotion of INCMGA0012 in Zai Lab's licensed territories.

MorphoSys

In January 2020, we entered into a Collaboration and License Agreement with MorphoSys AG and MorphoSys US Inc., a wholly-owned subsidiary of MorphoSys AG, covering the worldwide development and commercialization of MOR208 (tafasitamab), an investigational Fc engineered monoclonal antibody directed against the target molecule CD19 that is currently in clinical development by MorphoSys. MorphoSys has exclusive worldwide development and commercialization rights to tafasitamab under a June 2010 collaboration and license agreement with Xencor, Inc. In December 2019, MorphoSys submitted a Biologics License Application to the FDA for tafasitamab for the treatment of relapsed or refractory diffuse large B cell lymphoma.

Under the terms of the agreement, we will receive exclusive commercialization rights outside of the United States, and MorphoSys and we will have co-commercialization rights in the United States, with respect to tafasitamab. MorphoSys will be responsible for leading the commercialization strategy and booking all revenue from sales of tafasitamab in the United States, and we and MorphoSys will both be responsible for commercialization efforts in the United States and will share equally the profits and losses from the co-commercialization efforts. We will lead the commercialization strategy outside of the United States, and will be responsible for commercialization efforts and book all revenue from sales of tafasitamab outside of the United States, subject to our royalty payment obligations set forth

below. We and MorphoSys have agreed to co-develop tafasitamab and to share development costs associated with global and U.S.-specific clinical trials, with Incyte responsible for 55% of such costs and MorphoSys responsible for 45% of such costs. Each company will be responsible for funding any independent development activities, and we will be responsible for funding development activities specific to our territory. All development costs related to the collaboration will be subject to a joint development plan.

We have agreed to pay MorphoSys an upfront non-refundable payment of $750.0 million. MorphoSys will be eligible to receive up to $740.0 million in future contingent development and regulatory milestones and up to $315.0 million in commercialization milestones as well as tiered royalties ranging from the mid-teens to mid-twenties of net sales outside of the United States. MorphoSys' right to receive royalties in any particular country will expire upon the last to occur of (a) the expiration of patent rights in that particular country, (b) a specified period of time after the first post-marketing authorization sale of a licensed product comprising tafasitamab in that country, and (c) the expiration of any regulatory exclusivity for that licensed product in that country.

The effectiveness of the agreement is conditioned on the early termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 as well as clearance by the German and Austrian antitrust authorities.

Critical Accounting Policies and Significant Estimates

The preparation of financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form our basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from those estimates under different assumptions or conditions. We believe the following critical accounting policies reflect the more significant judgments and estimates used in the preparation of our consolidated financial statements. See Note 1 of Notes to the Consolidated Financial Statements for a complete list of our significant accounting policies.

Revenue Recognition. We recognize revenue only when we have satisfied a performance obligation through transferring control of the promised good or service to a customer. Control, in this instance, may mean the ability to prevent other entities from directing the use of, and receiving benefit from, a good or service. The standard indicates that an entity must determine at contract inception whether it will transfer control of a promised good or service over time or satisfy the performance obligation at a point in time through analysis of the following criteria: (i) the entity has a present right to payment, (ii) the customer has legal title, (iii) the customer has physical possession, (iv) the customer has the significant risks and rewards of ownership and (v) the customer has accepted the asset. We assess collectability based primarily on the customer's payment history and on the creditworthiness of the customer.

Product Revenues

Our product revenues consist of U.S. sales of JAKAFI and European sales of ICLUSIG. Product revenues are recognized once we satisfy the performance obligation at a point in time under the revenue recognition criteria as described above. We recognize revenues for product received by our customers net of allowances for customer credits, including estimated rebates, chargebacks, discounts, returns, distribution service fees, patient assistance programs, and government rebates, such as Medicare Part D coverage gap reimbursements in the U.S. These sales allowances and accruals are recorded based on estimates which are described in detail below. Estimates are assessed as of the end of each reporting period and are updated to reflect current information. We believe that our sales allowances and accruals are reasonable and appropriate based on current facts and circumstances.

Customer Credits: Our customers are offered various forms of consideration, including allowances, service fees and prompt payment discounts. We expect our customers will earn prompt payment discounts and, therefore, we deduct the full amount of these discounts from total product sales when revenues are recognized. Service fees are also deducted from total product sales as they are earned.

Rebates and Discounts: We accrue rebates for mandated discounts under the Medicaid Drug Rebate Program in the U.S. and mandated discounts in Europe in markets where government-sponsored healthcare systems are the primary payers for healthcare. These accruals are based on statutory discount rates and expected utilization as well as historical data we have accumulated since product launch. Our estimates for expected utilization of rebates are based on data received from our customers. Rebates are generally invoiced and paid in arrears so that the accrual balance consists of an estimate of the amount expected to be incurred for the current quarter's activity, plus an accrual balance for known prior quarters' unpaid rebates. If actual future rebates vary from estimates, we may need to adjust prior period accruals, which would affect revenue in the period of adjustment.

Chargebacks: Chargebacks are discounts that occur when certain contracted customers purchase directly from our wholesalers at a discounted price. The wholesalers, in turn, charges back to us the difference between the price initially paid by the wholesalers and the discounted price paid by the contracted customers. In addition to actual chargebacks received, we maintain an accrual for chargebacks based on the estimated contractual discounts on the inventory levels on hand in our distribution channel. If actual future chargebacks vary from these estimates, we may need to adjust prior period accruals, which would affect revenue in the period of adjustment.

Medicare Part D Coverage Gap: Medicare Part D prescription drug benefit mandates manufacturers to fund 70% of the Medicare Part D insurance coverage gap for prescription drugs sold to eligible patients. Our estimates for the expected Medicare Part D coverage gap are based on historical invoices received and in part from data received from our customers. Funding of the coverage gap is generally invoiced and paid in arrears so that the accrual balance consists of an estimate of the amount expected to be incurred for the current quarter's activity, plus an accrual balance for known prior quarters. If actual future funding varies from estimates, we may need to adjust prior period accruals, which would affect revenue in the period of adjustment.

Co-payment Assistance: Patients who have commercial insurance and meet certain eligibility requirements may receive co-payment assistance. We accrue a liability for co-payment assistance based on actual program participation and estimates of program redemption using data provided by third-party administrators.

Product Royalty Revenues

Royalty revenues on commercial sales for JAKAVI by Novartis are estimated based on information provided by Novartis. Royalty revenues on commercial sales for OLUMIANT by Lilly are estimated based on information provided by Lilly. We exercise judgment in determining whether the information provided is sufficiently reliable for us to base our royalty revenue recognition thereon. If actual royalties vary from estimates, we may need to adjust the prior period, which would affect royalty revenue and receivable in the period of adjustment.

Milestone and Contract Revenues

At the inception of the contract, the transaction price reflects the amount of consideration we expect to be entitled to in exchange for transferring promised goods or services to our collaborator. We review our estimate of the transaction price each period, and make revisions to such estimates as necessary. Milestone and contract revenues from collaborative agreements with multiple performance obligations is determined based upon assessment of each distinct promised good or service's estimated fair value and recognized based upon the transfer of the promised good or service to our collaborator.

Our license agreements often include contractual milestones, which typically relate to the achievement of pre-specified development, regulatory and commercialization events outside of our control, such as regulatory approval of a compound, first patient dosing or achievement of sales-based thresholds. As such, milestones associated with our collaborations involve a substantial degree of uncertainty and risk that they may never be received. Given the uncertainty associated with achieving these milestones, a constraint on the allocated consideration is assessed each reporting period. Revenues are recognized when achievement is probable, which may not be until achieved.

Stock Compensation. Share-based payment transactions with employees, which include stock options, restricted stock units (RSUs) and performance shares (PSUs), are recognized as compensation expense over the requisite service period based on their estimated fair values at the date of grant as well as expected forfeiture rates based on actual

experience. The stock compensation process requires significant judgment and the use of estimates, particularly surrounding Black-Scholes assumptions such as stock price volatility over the option term and expected option lives, as well as expected forfeiture rates and the probability of PSUs vesting. The fair value of stock options, which are subject to graded vesting, are recognized as compensation expense over the requisite service period using the accelerated attribution method. The fair value of RSUs that are subject to cliff vesting are recognized as compensation expense over the requisite service period using the straight-line attribution method, and the fair value of RSUs that are subject to graded vesting are recognized as compensation expense over the requisite service period using the accelerated attribution method. The fair value of PSUs are recognized as compensation expense beginning at the time in which the performance conditions are deemed probable of achievement. We assess the probability of achievement of performance conditions, including projected product revenues and clinical development milestones, as of the end of each reporting period. Once a performance condition is considered probable, we record compensation expense based on the portion of the service period elapsed to date with respect to that award, with a cumulative catch-up, net of estimated forfeitures, and recognize any remaining compensation expense, if any, over the remaining requisite service period using the straight-line attribution method for PSUs that are subject to cliff vesting and using the accelerated attribution method for PSUs that are subject to graded vesting.

Income Taxes. We account for income taxes using an asset and liability approach to financial accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement carrying amounts and tax bases of assets and liabilities using enacted tax rates in effect for years in which the basis differences are expected to reverse. We periodically assess the likelihood of the realization of deferred tax assets, and reduce the carrying amount of these deferred tax assets to an amount that is considered to be more-likely-than-not to be realizable. Our assessment considers recent cumulative earnings experience, projections of future taxable income (losses) and ongoing prudent and feasible tax planning strategies. When performing our assessment on projections of future taxable income (losses), we consider factors such as the likelihood of regulatory approval and commercial success of products currently under development, among other factors. Significant judgment is required in making this assessment and, to the extent that a reversal of any portion of our valuation allowance against our deferred tax assets is deemed appropriate, a tax benefit will be recognized against our income tax provision in the period of such reversal.

We recognize the tax benefit from an uncertain tax position only if it is more-likely-than-not that the position will be sustained upon examination by the taxing authorities, including resolutions of any related appeals or litigation processes, based on the technical merits of the position. The tax benefit that is recorded for these positions is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. We adjust the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions. Any interest and penalties on uncertain tax positions are included within the tax provision.

We record estimates and prepare and file tax returns in various jurisdictions across the U.S., Europe, and Asia based upon our interpretation of local tax laws and regulations. While we exercise significant judgment when applying complex tax laws and regulations in these various taxing jurisdictions, many of our tax returns are open to audit, and may be subject to future tax, interest, and penalty assessments.

We believe our estimates for the valuation allowances against certain deferred tax assets and the amount of benefits associated with uncertain tax positions recognized in our financial statements are appropriate based upon our assessment of the factors mentioned above.

Acquisition-related contingent consideration. Acquisition-related contingent consideration, which consists of our future royalty and certain potential milestone obligations to ARIAD/Takeda, was recorded on the acquisition date at the estimated fair value of the obligation, in accordance with the acquisition method of accounting. The fair value of the contingent consideration was determined using an income approach based on estimated ICLUSIG revenues in the European Union and other countries. As the fair value measurement is based on significant inputs that are unobservable in the market, this represents a Level 3 measurement.

The fair value of the acquisition-related contingent consideration is remeasured each reporting period, with changes in fair value recorded in the consolidated statements of operations. The assumptions used to determine the fair value of the acquisition-related contingent consideration include projected ICLUSIG revenues and discount rates which,

require significant judgement and are analyzed on a quarterly basis. While we use the best available information to prepare our projected ICLUSIG revenues and discount rate assumptions, actual ICLUSIG revenues and/or market conditions could differ significantly. Changes to one or multiple inputs could have a material impact on the amount of acquisition-related contingent consideration expense recorded during the reporting period.

Results of Operations

Years Ended December 31, 2019 and 2018

We recorded net income for the year ended December 31, 2019 of $446.9 million and net income for the year ended December 31, 2018 of $109.5 million. On a per share basis, basic net income was $2.08 and diluted net income was $2.05 for the year ended December 31, 2019. On a per share basis, basic net income was $0.52 and diluted net income was $0.51 for the year ended December 31, 2018.

Revenues

	For the Year Ended, December 31,	
	2019	2018
	(in millions)	
JAKAFI revenues, net	$ 1,685.0	$ 1,387.0
ICLUSIG revenues, net	90.0	79.9
Total product revenues, net	1,775.0	1,466.9
JAKAVI product royalty revenues	225.9	194.7
OLUMIANT product royalty revenues	80.4	40.1
Total product royalty revenues	306.3	234.8
Milestone and contract revenues	77.5	180.0
Other revenues	—	0.2
Total revenues	$ 2,158.8	$ 1,881.9

Our product revenues, net for the years ended December 31, 2019 and 2018, were $1.8 billion and $1.5 billion, respectively. The increase in JAKAFI product revenues was comprised of a volume increase of $204.5 million and a price increase of $93.5 million. Our product revenues may fluctuate from period to period due to our customers' purchasing patterns over the course of a year, including as a result of increased inventory building by customers in advance of expected or announced price increases. Product revenues are recorded net of estimated product returns, pricing discounts including rebates offered pursuant to mandatory federal and state government programs and chargebacks, prompt pay discounts and distribution fees and co-pay assistance. Our revenue recognition policies require estimates of the aforementioned sales allowances each period.

The following table provides a summary of activity with respect to our sales allowances and accruals:

Year Ended December 31, 2019	Discounts and Distribution Fees	Government Rebates and Chargebacks	Co-Pay Assistance and Other Discounts	Product Returns	Total
Balance at January 1, 2019	$ 5,125	$ 39,737	$ 547	$ 2,270	$ 47,679
Allowances for current period sales	49,995	256,406	8,524	411	315,336
Allowances for prior period sales	(306)	370	—	(164)	(100)
Credits/payments for current period sales	(43,974)	(214,430)	(8,198)	—	(266,602)
Credits/payments for prior period sales	(4,310)	(27,321)	(170)	(857)	(32,658)
Balance at December 31, 2019	$ 6,530	$ 54,762	$ 703	$ 1,660	$ 63,655

Government rebates and chargebacks are the most significant component of our sales allowances. Increases in certain government reimbursement rates are limited to a measure of inflation, and when the price of a drug increases faster than this measure of inflation it will result in a penalty adjustment factor that causes a larger sales allowance to those

government related entities. We expect government rebates and chargebacks as a percentage of our gross product sales will continue to increase in connection with any future JAKAFI price increases greater than the rate of inflation, and any such increase in these government rebates and chargebacks will have a negative impact on our reported product revenues, net. We adjust our estimates for government rebates and chargebacks based on new information regarding actual rebates as it becomes available. Claims by third-party payors for rebates and chargebacks are frequently submitted after the period in which the related sales occurred, which may result in adjustments to prior period accrual balances in the period in which the new information becomes available. We also adjust our allowance for product returns based on new information regarding actual returns as it becomes available.

We expect our sales allowances to fluctuate from quarter to quarter as a result of the Medicare Part D Coverage Gap, the volume of purchases eligible for government mandated discounts and rebates as well as changes in discount percentages which are impacted by potential future price increases, rate of inflation, and other factors.

Product royalty revenues on commercial sales of JAKAVI by Novartis are based on net sales of licensed products in licensed territories as provided by Novartis. Product royalty revenues on commercial sales of OLUMIANT by Lilly are based on net sales of licensed products in licensed territories as provided by Lilly.

Our milestone and contract revenues were $77.5 million and $180.0 million for the years ended December 31, 2019 and 2018, respectively. During the year ended December 31, 2019, under the Innovent agreement, we recognized a $40.0 million upfront payment and a $20.0 million milestone and under the Zai Lab agreement, we recognized a $17.5 million upfront payment. During the year ended December 31, 2018, under the Lilly agreement, we recognized a $20.0 million development milestone for the first patient treated in systemic lupus erythematosus Phase III program for baricitinib and a $100.0 million regulatory milestone for the approval of the 2mg dose of OLUMIANT for the treatment of moderately-to-severely active rheumatoid arthritis in adult patients by the FDA and under the Novartis agreement, we recognized a $60.0 million milestone for Novartis achieving annual net sales of a JAK licensed product of $900.0 million.

Cost of Product Revenues

	For the Year Ended, December 31,	
	2019	2018
	(in millions)	
Product costs	$ 11.8	$ 9.6
Salary and benefits related	2.6	—
Stock compensation	0.7	—
Royalty expense	77.6	63.0
Amortization of definite-lived intangible assets	21.5	21.5
Total cost of product revenues	$ 114.2	$ 94.1

Cost of product revenues includes all JAKAFI and ICLUSIG related product costs, employee personnel costs, including stock compensation, for those employees dedicated to the production of our commercial products, low single-digit royalties to Novartis on all sales of JAKAFI in the United States and amortization of our licensed intellectual property rights for ICLUSIG using the straight-line method over the estimated useful life of 12.5 years. Cost of product revenues increased from 2018 to 2019 due primarily to increased royalties to Novartis on all JAKAFI sales in the United States.

Operating Expenses

Research and development expenses

	For the Years Ended, December 31,	
	2019	2018
	(in millions)	
Salary and benefits related	$ 252.2	$ 216.1
Stock compensation	114.0	101.1
Clinical research and outside services	677.2	779.0
Occupancy and all other costs	110.7	101.8
Total research and development expenses	$ 1,154.1	$ 1,198.0

We account for research and development costs by natural expense line and not costs by project. Salary and benefits related expense increased from 2018 to 2019 due primarily to increased development headcount to sustain our development pipeline. Stock compensation expense may fluctuate from period to period based on the number of awards granted, stock price volatility and expected award lives, as well as expected award forfeiture rates which are used to value equity-based compensation.

The decrease in clinical research and outside services expense from 2018 to 2019 was primarily due to upfront and milestone expenses related to our collaborative agreements and the election to end additional co-funding of the development of baricitinib with Lilly effective as of January 1, 2019. Research and development expenses include upfront and milestone expenses related to our collaborative agreements of $27.8 million and $52.4 million for the years ended 2019 and 2018, respectively. For the year ended 2019, we recorded no research and development expense under the Lilly agreement for co-funding the development of baricitinib. For the year ended 2018, we recorded $68.6 million in research and development expenses under the Lilly agreement representing 30% of the global development costs for baricitinib. Research and development expenses for the years ended December 31, 2019 and 2018 were net of $15.1 million and $10.5 million, respectively, of costs reimbursed by our collaborative partners.

In addition to one-time expenses resulting from upfront fees in connection with the entry into any new or amended collaboration agreements and payment of milestones under those agreements, research and development expenses may fluctuate from period to period depending upon the stage of certain projects and the level of pre-clinical and clinical trial related activities. Many factors can affect the cost and timing of our clinical trials, including requests by regulatory agencies for more information, inconclusive results requiring additional clinical trials, slow patient enrollment, adverse side effects among patients, insufficient supplies for our clinical trials and real or perceived lack of effectiveness or safety of our investigational drugs in our clinical trials. In addition, the development of all of our products will be subject to extensive governmental regulation. These factors make it difficult for us to predict the timing and costs of the further development and approval of our products.

Selling, general and administrative expenses

	For the Years Ended, December 31,	
	2019	2018
	(in millions)	
Salary and benefits related	$ 130.2	$ 114.3
Stock compensation	51.9	47.1
Other contract services and outside costs	286.6	273.0
Total selling, general and administrative expenses	$ 468.7	$ 434.4

Salary and benefits related expense increased from 2018 to 2019 due to increased headcount. This increased headcount was due primarily to the ongoing commercialization efforts related to JAKAFI for intermediate or high-risk myelofibrosis, uncontrolled polycythemia vera and GVHD as well as increased headcount related to our European operations. Stock compensation expense may fluctuate from period to period based on the number of awards granted,

stock price volatility and expected award lives, as well as expected award forfeiture rates which are used to value equity-based compensation.

Change in fair value of acquisition-related contingent consideration

Acquisition-related contingent consideration, which consists of our future royalty and certain potential milestone obligations to Takeda, was recorded on the acquisition date, June 1, 2016, at the estimated fair value of the obligation, in accordance with the acquisition method of accounting. The fair value of the acquisition-related contingent consideration is remeasured quarterly. The change in fair value of the acquisition-related contingent consideration for the years ended December 31, 2019 and 2018 was $19.7 million and $26.2 million, respectively. The change in fair value of the contingent consideration for the years ended December 31, 2019 and 2018 was due primarily to the passage of time as there were no other significant changes in the key assumptions during the periods.

Other income (expense)

Other income (expense), net. Other income (expense), net, for the years ended December 31, 2019 and 2018 was $52.2 million and $31.8 million, respectively. The increase in other income (expense), net primarily relates to interest income and refundable research and development credits from the state of Delaware.

Interest expense. Interest expense for the years ended December 31, 2019 and 2018, was $1.9 million and $1.5 million, respectively. Included in interest expense for the years ended December 31, 2019 and 2018 was $0.9 million and $1.2 million, respectively, of non-cash charges to amortize the discounts on our convertible senior notes due November 2018 and November 2020.

Unrealized gain (loss) on long term investments. Unrealized gains and losses on long term investments will fluctuate from period to period, based on the change in fair value of the securities we hold in our publicly held collaboration partners. The following table provides a summary of those unrealized gains and (losses):

	For the Years Ended, December 31,	
	2019	2018
	(in millions)	
Agenus	$ 30.0	$ (15.6)
Calithera	2.9	(7.5)
Merus	0.3	(17.3)
Syros	1.3	(3.7)
Total unrealized gain (loss) on long term investments	$ 34.5	$ (44.1)

Provision for income taxes. The provision for income taxes for the years ended December 31, 2019 and 2018 was $39.9 million and $5.9 million, respectively. The increase in provision for income taxes primarily relates to federal and state tax liabilities that are not fully sheltered by net operating losses or research and development tax credit carryforwards. This is partially offset by higher tax benefits associated with stock-based compensation.

Liquidity and Capital Resources

	2019	2018
	(in millions)	
December 31:		
Cash, cash equivalents, and marketable securities	$ 2,117.6	$ 1,438.3
Working capital	$ 1,968.1	$ 1,407.0
Year ended December 31:		
Cash provided by (used in):		
Operating activities	$ 710.7	$ 336.2
Investing activities	$ (87.5)	$ (86.4)
Financing activities	$ 45.7	$ 14.7
Capital expenditures (included in investing activities above)	$ (78.1)	$ (73.5)

Sources and Uses of Cash.

Due to historical net losses, we had an accumulated deficit of $1.4 billion as of December 31, 2019. We have funded our research and development operations through sales of equity securities, the issuance of convertible notes, cash received from customers, and collaborative arrangements. At December 31, 2019, we had available cash, cash equivalents and marketable securities of $2.1 billion. Our cash and marketable securities balances are held in a variety of interest-bearing instruments, including money market accounts, corporate debt securities and U.S. government securities. Available cash is invested in accordance with our investment policy's primary objectives of liquidity, safety of principal and diversity of investments.

Cash provided by operating activities. The $374.5 million increase in cash provided by operating activities from 2018 to 2019 was due primarily to our increased product revenues and changes in working capital.

Cash used in investing activities. Our investing activities, other than purchases, sales and maturities of marketable securities, have consisted predominantly of capital expenditures and purchases of long term investments. During 2019, net cash used in investing activities was $87.5 million, which represents purchases of marketable securities of $374.8 million and capital expenditures of $78.1 million, offset in part by the sale and maturity of marketable securities of $365.4 million. During 2018, net cash used in investing activities was $86.4 million, which represents purchases of marketable securities of $159.9 million, capital expenditures of $73.5 million, and purchases of long term investments of $8.9 million, offset in part by the sale and maturity of marketable securities of $155.9 million.

Cash provided by financing activities. During 2019 and 2018, net cash provided by financing activities was $45.7 million and $14.7 million, respectively, consisting primarily of proceeds from the issuance of common stock under our stock plans, offset in part by cash paid to ARIAD/Takeda for contingent consideration.

The following summarizes our significant contractual obligations as of December 31, 2019 and the effect those obligations are expected to have on our liquidity and cash flow in future periods (in millions):

	Total	Less Than 1 Year	Years 2 - 3	Years 4 - 5	Over 5 Years
Contractual Obligations:					
Principal on convertible senior debt	$ 19.1	$ 19.1	$ —	$ —	$ —
Interest on convertible senior debt	0.2	0.2	—	—	—
Finance lease liabilities	44.0	0.7	5.2	5.5	32.6
Operating lease liabilities	22.2	10.2	9.0	2.0	1.0
Other non-cancelable obligations	2.0	1.0	1.0	—	—
Total contractual obligations	$ 87.5	$ 31.2	$ 15.2	$ 7.5	$ 33.6

We have entered into and may in the future seek to license additional rights relating to technologies or drug development candidates in connection with our drug discovery and development programs. Under these licenses, we may

be required to pay upfront fees, milestone payments, and royalties on sales of future products, which are not reflected in the table above.

In October 2019, we entered into an agreement with Wilmington Friends School Inc., to purchase property for $50.0 million to expand our global headquarters. Under that agreement, closing of the purchase is subject to certain standard closing conditions, including an initial diligence period and a subsequent approval period.

In January 2020, we entered into a collaboration and license agreement and related purchase agreement with MorphoSys, under which we agreed to pay MorphoSys and upfront non-refundable payment of $750.0 million and to purchase American Depositary Shares (ADSs) representing ordinary shares of MorphoSys for an aggregate purchase price of $150.0 million. The effectiveness of the collaboration and license agreement is conditioned on the early termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 as well as clearance by the German and Austrian antitrust authorities, and closing of the purchase of the ADSs is subject to customary conditions, as well as the effectiveness of the collaboration and license agreement.

We believe that our cash flow from operations, together with our cash, cash equivalents and marketable securities, will be adequate to satisfy our capital needs for the foreseeable future. Our cash requirements depend on numerous factors, including our expenditures in connection with our drug discovery and development programs and commercialization operations; expenditures in connection with litigation or other legal proceedings; costs for future facility requirements; our receipt of any milestone or other payments under any collaborative agreements we may enter into, including the agreements with Novartis, Lilly, Innovent and Zai Lab; and expenditures in connection with strategic relationships and license agreements, including our agreements with Agenus, ARIAD/Takeda, Calithera, Lilly, MacroGenics, MorphoSys, Merus and Syros, strategic equity investments or potential acquisitions. To the extent we seek to augment our existing cash resources and cash flow from operations to satisfy our cash requirements for future acquisitions or other strategic purposes, we expect that additional funding can be obtained through equity or debt financings or from other sources. The sale of equity or additional convertible debt securities in the future may be dilutive to our stockholders, and may provide for rights, preferences or privileges senior to those of our holders of common stock. Debt financing arrangements may require us to pledge certain assets or enter into covenants that could restrict our operations or our ability to incur further indebtedness.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements other than those that are discussed above.

Item 7A. ***Quantitative and Qualitative Disclosures About Market Risk***

Our investments in marketable securities, which are composed primarily of corporate debt securities and U.S. government securities, are subject to default, changes in credit rating and changes in market value. These investments are also subject to interest rate risk and will decrease in value if market interest rates increase. As of December 31, 2019, marketable securities were $284.9 million. Due to the nature of these investments, if market interest rates were to increase immediately and uniformly by 10% from levels as of December 31, 2019, the decline in fair value would not be material.

Item 8. ***Financial Statements and Supplementary Data***

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Incyte Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Incyte Corporation (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (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 13, 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 consolidated 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.

Allowances for rebates to governmental entities

Description of the Matter

As discussed in Note 1 to the consolidated financial statements, the Company recognizes revenues for product received by its customers net of allowances for customer credits, including rebates, discounts and chargebacks. Liabilities related to sales allowances are presented within accrued and other current liabilities on the consolidated balance sheet and totaled $59.9 million as of December 31, 2019. Adjustments to gross product revenue include allowances for rebates to governmental entities.

Auditing the allowances for rebates to governmental entities was complex and highly judgmental due to the significant estimation uncertainty involved in management's assumptions, including the levels of expected future claims and the amount of forecasted shipments from wholesalers that will be dispensed to eligible benefit plan participants, as well as the complexity of governmental

pricing calculations. The allowances for rebates to governmental entities are sensitive to these significant assumptions and calculations.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over management's review of the allowances for rebates to governmental entities. For example, we tested controls over management's review of the significant assumptions, such as the levels of expected future claims and the amount of forecasted shipments from wholesalers that will be dispensed to eligible benefit plan participants, as well as controls over management's review of the application of the governmental pricing regulations.

To test the allowances for rebates to governmental entities, we performed audit procedures that included, among others, evaluating the methodologies used and testing the significant assumptions discussed above. We compared the significant assumptions used by management to historical trends, evaluated the change in the accruals from prior periods, and assessed the historical accuracy of management's estimates against actual results. We also tested the completeness and accuracy of the underlying data used in the Company's calculations through reconciliation to third-party invoices, claims data and actual cash payments. In addition, we involved our governmental pricing specialists to assist in evaluating management's methodology and calculations used to measure certain estimated rebates.

Valuation of acquisition-related contingent consideration liability

Description of the Matter

As discussed in Note 3 to the consolidated financial statements, the Company's acquisition-related contingent consideration liability, which consists of certain future royalty obligations, is remeasured to its estimated fair value each reporting period. As of December 31, 2019, the acquisition-related contingent consideration liability was $277.0 million.

Auditing the valuation of the acquisition-related contingent consideration liability was complex and highly judgmental due to the significant estimation required in determining the fair value. In particular, the fair value estimate was sensitive to significant assumptions such as the weighted average cost of capital and the revenue growth rates, which are affected by expectations about future industry, market or economic conditions, and are forward-looking and inherently uncertain.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's valuation of the acquisition-related contingent consideration liability. For example, we tested the Company's controls over management's review of the valuation model, including controls over the significant assumptions utilized in the calculation, such as the weighted average cost of capital and the forecasted revenue growth rates.

To test the estimated fair value of the acquisition-related contingent consideration liability, we performed audit procedures that included, among others, assessing the terms of the arrangement, evaluating the methodology used, and testing the significant assumptions discussed above used by the Company in its analysis. We involved our valuation specialists to assist in the evaluation of the significant assumptions and methodology used by the Company. We also compared the significant assumptions to current industry, market and economic trends and to the Company's budgets and forecasts. In addition, we assessed the historical accuracy of management's estimates against actual performance.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1991.

Philadelphia, Pennsylvania

February 13, 2020

INCYTE CORPORATION

CONSOLIDATED BALANCE SHEETS

(in thousands, except number of shares and par value)

	December 31,	
	2019	**2018**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,832,684	$ 1,163,980
Marketable securities—available-for-sale	284,870	274,343
Accounts receivable	308,809	307,598
Inventory	11,400	6,967
Prepaid expenses and other current assets	43,725	79,366
Total current assets	2,481,488	1,832,254
Restricted cash and investments	1,023	1,006
Long term investments	133,657	99,199
Inventory	5,105	3,438
Property and equipment, net	377,567	319,751
Finance lease right-of-use assets, net	29,058	—
Other intangible assets, net	193,828	215,364
Goodwill	155,593	155,593
Other assets, net	49,431	19,157
Total assets	$ 3,426,750	$ 2,645,762
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 83,647	$ 103,827
Accrued compensation	90,706	60,176
Interest payable	29	29
Accrued and other current liabilities	285,950	229,401
Finance lease liabilities	664	—
Convertible senior notes	18,300	—
Acquisition-related contingent consideration	34,044	31,844
Total current liabilities	513,340	425,277
Convertible senior notes	—	17,434
Acquisition-related contingent consideration	242,956	255,157
Finance lease liabilities	31,918	—
Other liabilities	40,130	21,927
Total liabilities	828,344	719,795
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; none issued or outstanding as of December 31, 2019 and December 31, 2018	—	—
Common stock, $0.001 par value; 400,000,000 shares authorized; 216,177,830 and 213,274,660 shares issued and outstanding as of December 31, 2019 and December 31, 2018, respectively	216	213
Additional paid-in capital	4,044,490	3,813,678
Accumulated other comprehensive loss	(15,542)	(10,165)
Accumulated deficit	(1,430,758)	(1,877,759)
Total stockholders' equity	2,598,406	1,925,967
Total liabilities and stockholders' equity	$ 3,426,750	$ 2,645,762

See accompanying notes.

INCYTE CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)

	Year Ended December 31,		
	2019	**2018**	**2017**
Revenues:			
Product revenues, net	$ 1,774,922	$ 1,466,900	$ 1,200,312
Product royalty revenues	306,337	234,780	160,791
Milestone and contract revenues	77,500	180,000	175,000
Other revenues	—	203	113
Total revenues	2,158,759	1,881,883	1,536,216
Costs and expenses:			
Cost of product revenues (including definite-lived intangible amortization)	114,249	94,123	79,479
Research and development	1,154,111	1,197,957	1,326,134
Selling, general and administrative	468,711	434,407	366,286
Change in fair value of acquisition-related contingent consideration	19,682	26,173	7,704
Total costs and expenses	1,756,753	1,752,660	1,779,603
Income (loss) from operations	402,006	129,223	(243,387)
Other income (expense), net	52,182	31,760	17,153
Interest expense	(1,855)	(1,543)	(6,900)
Unrealized gain (loss) on long term investments	34,458	(44,093)	(24,275)
Expense related to senior note conversions	—	—	(54,881)
Income (loss) before provision for income taxes	486,791	115,347	(312,290)
Provision for income taxes	39,885	5,854	852
Net income (loss)	$ 446,906	$ 109,493	$ (313,142)
Net income (loss) per share:			
Basic	$ 2.08	$ 0.52	$ (1.53)
Diluted	$ 2.05	$ 0.51	$ (1.53)
Shares used in computing net income (loss) per share:			
Basic	214,913	212,383	204,580
Diluted	217,657	215,635	204,580

See accompanying notes.

INCYTE CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Net income (loss)	$ 446,906	$ 109,493	$ (313,142)
Other comprehensive loss:			
Foreign currency translation	(192)	91	(39)
Unrealized gain on marketable securities, net of tax	1,137	203	1,615
Defined benefit pension obligations, net of tax	(6,322)	(696)	(5,700)
Other comprehensive loss	(5,377)	(402)	(4,124)
Comprehensive income (loss)	$ 441,529	$ 109,091	$ (317,266)

See accompanying notes.

INCYTE CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except number of shares)

	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
Balances at December 31, 2016	$ 189	$2,096,929	$ (2,886)	$(1,674,765)	$ 419,467
Issuance of 3,012,937 shares of Common Stock upon exercise of stock options and settlement of employee restricted stock units and performance shares and 157,277 shares of Common Stock under the ESPP	3	66,732	—	—	66,735
Issuance of 7,095,350 shares of Common Stock upon conversion of Convertible Senior Notes due 2020	7	330,004	—	—	330,011
Issuance of 7,201,058 shares of Common Stock upon conversion of Convertible Senior Notes due 2018	7	351,037	—	—	351,044
Issuance of 2,532 shares of Common Stock for services rendered	—	294	—	—	294
Issuance of 4,945,000 shares of Common Stock	5	649,382	—	—	649,387
Stock compensation	—	133,055	—	—	133,055
Other comprehensive loss	—	—	(4,124)	—	(4,124)
Adoption of ASU No. 2016-16	—	—	—	(2,098)	(2,098)
Net loss	—	—	—	(313,142)	(313,142)
Balances at December 31, 2017	$ 211	$3,627,433	$ (7,010)	$(1,990,005)	$ 1,630,629
Issuance of 1,624,376 shares of Common Stock upon exercise of stock options and settlement of employee restricted stock units and 233,712 shares of Common Stock under the ESPP	2	29,940	—	—	29,942
Issuance of 148,761 shares of Common Stock upon conversion of Convertible Senior Notes due 2018	—	7,695	—	—	7,695
Issuance of 4,905 shares of Common Stock for services rendered	—	344	—	—	344
Stock compensation	—	148,266	—	—	148,266
Other comprehensive loss	—	—	(402)	—	(402)
Adoption of ASU No. 2016-01	—	—	(2,753)	2,753	—
Net income	—	—	—	109,493	109,493
Balances at December 31, 2018	$ 213	$3,813,678	$ (10,165)	$(1,877,759)	$ 1,925,967
Issuance of 2,657,892 shares of Common Stock upon exercise of stock options and settlement of employee restricted stock units and 239,590 shares of Common Stock under the ESPP	3	63,296	—	—	63,299
Issuance of 5,688 shares of Common Stock for services rendered	—	487	—	—	487
Stock compensation	—	167,029	—	—	167,029
Other comprehensive loss	—	—	(5,377)	—	(5,377)
Adoption of ASU No. 2016-02 (Note 1)	—	—	—	95	95
Net income	—	—	—	446,906	446,906
Balances at December 31, 2019	$ 216	$4,044,490	$ (15,542)	$(1,430,758)	$ 2,598,406

See accompanying notes.

INCYTE CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2019	**2018**	**2017**
Cash flows from operating activities:			
Net income (loss)	$ 446,906	$ 109,493	$(313,142)
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	54,533	54,969	52,178
In-process research and development impairment	—	—	12,000
Stock-based compensation	166,589	148,153	133,055
Expense related to senior note conversions	—	—	54,881
Deferred income taxes	(377)	(459)	—
Other, net	486	344	290
Unrealized (gain) loss on long term investments	(34,458)	44,093	24,275
Change in fair value of acquisition-related contingent consideration	19,682	26,173	7,704
Changes in operating assets and liabilities:			
Accounts receivable	(1,211)	(41,299)	(117,541)
Prepaid expenses and other assets	5,744	(33,412)	(31,367)
Inventory	(6,100)	4,043	4,851
Accounts payable	(20,180)	36,156	(7,928)
Accrued and other liabilities	79,042	(12,027)	87,756
Net cash provided by (used in) operating activities	710,656	336,227	(92,988)
Cash flows from investing activities:			
Purchase of long term investments	—	(8,936)	(123,891)
Capital expenditures	(78,064)	(73,483)	(111,021)
Purchases of marketable securities	(374,809)	(159,932)	(260,780)
Sale and maturities of marketable securities	365,419	155,928	145,714
Net cash used in investing activities	(87,454)	(86,423)	(349,978)
Cash flows from financing activities:			
Proceeds from issuance of common stock under stock plans	63,299	29,942	66,764
Proceeds from issuance of common stock, net	—	—	649,387
Cash paid in connection with senior note conversions	—	—	(8,934)
Payment of finance lease liabilities	(822)	—	—
Payment of contingent consideration	(16,766)	(15,285)	(17,007)
Net cash provided by financing activities	45,711	14,657	690,210
Effect of exchange rates on cash, cash equivalents, restricted cash and investments	(192)	91	(39)
Net increase in cash, cash equivalents, restricted cash and investments	668,721	264,552	247,205
Cash, cash equivalents, restricted cash and investments at beginning of period	1,164,986	900,434	653,229
Cash, cash equivalents, restricted cash and investments at end of period	$1,833,707	$1,164,986	$ 900,434
Supplemental Schedule of Cash Flow Information			
Interest paid	$ 239	$ 268	$ 314
Income taxes paid	$ 33,553	$ 5,417	$ 6,305
Reclassification to common stock and additional paid in capital in connection with conversions of 0.375% convertible senior notes due 2018	$ —	$ 7,695	$ 351,044
Reclassification to common stock and additional paid in capital in connection with conversions of 1.25% convertible senior notes due 2020	$ —	$ —	$ 330,011
Unpaid purchases of property and equipment	$ 12,732	$ 7,673	$ 5,643
Leased assets obtained in exchange for new operating lease liabilities	$ 7,607	$ —	$ —
Leased assets obtained in exchange for new finance lease liabilities	$ 29,889	$ —	$ —

See accompanying notes.

INCYTE CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Organization and Summary of Significant Accounting Policies

Organization and Business. Incyte Corporation (including its subsidiaries, "Incyte," "we," "us," or "our") is a biopharmaceutical company focused on developing and commercializing proprietary therapeutics. Our portfolio includes compounds in various stages, ranging from preclinical to late stage development, and commercialized products JAKAFI® (ruxolitinib) and ICLUSIG® (ponatinib). Our operations are treated as one operating segment.

Principles of Consolidation. The consolidated financial statements include the accounts of Incyte Corporation and our wholly owned subsidiaries. All inter-company accounts, transactions, and profits have been eliminated in consolidation.

Acquisitions. Acquired businesses are accounted for using the acquisition method of accounting, which requires that assets acquired and liabilities assumed be recorded at fair value, with limited exceptions. Any excess of the purchase price over the fair value of the net assets acquired is recorded as goodwill. Transaction costs are expensed as incurred. The operating results of the acquired business are reflected in our consolidated financial statements after the date of acquisition.

Foreign Currency Translation. Operations in non-U.S. entities are recorded in the functional currency of each entity. For financial reporting purposes, the functional currency of an entity is determined by a review of the source of an entity's most predominant cash flows. The results of operations for any non-U.S. dollar functional currency entities are translated from functional currencies into U.S. dollars using the average currency rate during each month. Assets and liabilities are translated using currency rates at the end of the period. Adjustments resulting from translating the financial statements of our foreign entities that use their local currency as the functional currency into U.S. dollars are reflected as a component of other comprehensive income (loss). Transaction gains and losses are recorded in other income (expense), net, in the consolidated statements of operations.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Concentrations of Credit Risk. Cash, cash equivalents, marketable securities, and trade receivables are financial instruments which potentially subject us to concentrations of credit risk. The estimated fair value of financial instruments approximates the carrying value based on available market information. We primarily invest our excess available funds in debt securities and, by policy, limit the amount of credit exposure to any one issuer and to any one type of investment, other than securities issued or guaranteed by the U.S. government and money market funds that meet certain guidelines. Our receivables mainly relate to our product sales of JAKAFI, ICLUSIG and collaborative agreements with pharmaceutical companies. We have not experienced any significant credit losses on cash, cash equivalents, marketable securities, or trade receivables to date and do not require collateral on receivables.

Cash and Cash Equivalents. Cash and cash equivalents are held in banks or in custodial accounts with banks. Cash equivalents are defined as all liquid investments and money market funds with maturity from date of purchase of 90 days or less that are readily convertible into cash.

Marketable Securities—Available-for-Sale. Our marketable securities consist of investments in corporate debt securities and U.S. government securities that are classified as available-for-sale. Available-for-sale securities are carried at fair value, based on quoted market prices and observable inputs, with unrealized gains and losses, net of tax, reported as a separate component of stockholders' equity. We classify marketable securities that are available for use in current operations as current assets on the consolidated balance sheets. Realized gains and losses and declines in value judged to be other than temporary for available-for-sale securities are included in other income (expense), net on the consolidated statements of operations. The cost of securities sold is based on the specific identification method.

Accounts Receivable. As of December 31, 2019 and 2018, we had a de minimis allowance for doubtful accounts. We provide an allowance for doubtful accounts based on experience and specifically identified risks. Accounts receivable are carried at fair value and charged off against the allowance for doubtful accounts when we determine that recovery is unlikely and we cease collection efforts.

Inventory. Inventories are determined at the lower of cost and net realizable value with cost determined under the specific identification method and may consist of raw materials, work in process and finished goods. JAKAFI and ICLUSIG raw materials and work-in-process inventory are not subject to expiration and the shelf life of finished goods inventory is 36 months from the start of manufacturing of the finished goods. We evaluate for potential excess inventory by analyzing current and future product demand relative to the remaining product shelf life. We build demand forecasts by considering factors such as, but not limited to, overall market potential, market share, market acceptance and patient usage. We classify inventory as current on the consolidated balance sheets when we expect inventory to be consumed for commercial use within the next twelve months.

Variable Interest Entities. We perform an initial and ongoing evaluation of the entities with which we have variable interests, such as equity ownership, in order to identify entities (i) that do not have sufficient equity investment at risk to permit the entity to finance its activities without additional subordinated financial support or (ii) in which the equity investors lack an essential characteristic of a controlling financial interest as variable interest entities ("VIE" or "VIEs"). If an entity is identified as a VIE, we perform an assessment to determine whether we have both (i) the power to direct activities that most significantly impact the VIE's economic performance and (ii) have the obligation to absorb losses from or the right to receive benefits of the VIE that could potentially be significant to the VIE. If both of these criteria are satisfied, we are identified as the primary beneficiary of the VIE. As of December 31, 2019, there were no entities in which we held a variable interest which we determined to be VIEs.

Long Term Investments. Our long term investments consist of equity investments in common stock of publicly-held companies with whom we have entered into collaboration and license agreements. We classify all of our equity investments in common stock of publicly-held companies as long term investments on our consolidated balance sheets. Our equity investments are accounted for at fair value using readily determinable pricing available on a securities exchange on our consolidated balance sheets. For the years ended December 31, 2019 and 2018, changes in fair value of our equity investments are reported on our consolidated statements of operations as an unrealized gain (loss) on long term investments. For the year ended December 31, 2017, the change in fair value of our equity investment in Calithera Biosciences, Inc. was recorded in accumulated other comprehensive income (loss) prior to the adoption of ASU No. 2016-01 on January 1, 2018.

In assessing whether we exercise significant influence over any of the companies in which we hold equity investments, we consider the nature and magnitude of our investment, any voting and protective rights we hold, any participation in the governance of the other company, and other relevant factors such as the presence of a collaboration or other business relationship. Currently, none of our equity investments in publicly-held companies are considered relationships in which we are able to assert control.

Property and Equipment, net. Property and equipment, net is stated at cost, less accumulated depreciation and amortization. Depreciation is recorded using the straight-line method over the estimated useful lives of the respective assets. Leasehold improvements are amortized over the shorter of the estimated useful life of the assets or lease term.

Lease Accounting. The new accounting standard for leases, Accounting Standard Codification ("ASC") 842, Leases, was adopted for the fiscal year beginning on January 1, 2019. Per the new standard, all leases with a lease term greater than 12 months, regardless of lease type classification, are recorded as an obligation on the balance sheet with a corresponding right-of-use asset. Under the prior standard for leases, only contracts assessed as capital leases were recorded on the balance sheet. Both finance and operating leases are reflected as liabilities on the commencement date of the lease based on the present value of the lease payments to be made over the lease term. Current operating lease liabilities are reflected in accrued and other current liabilities and noncurrent operating lease liabilities are reflected in other liabilities on the consolidated balance sheet. Right-of-use assets are valued at the initial measurement of the lease liability, plus any initial direct costs or rent prepayments, minus lease incentives and deferred lease payments. Operating lease right-of-use assets are recorded in property and equipment, net on the consolidated balance sheet. For operating leases, the expense

recognition is similar to that of operating leases under ASC 840, with a single lease cost recognized on a straight-line basis. For finance leases, the expense recognition is similar to that of capital leases under ASC 840, with separate amortization and interest expense, with higher interest expense in the earlier periods of a lease. Leases with an initial term of 12 months or less are not recorded on the balance sheet and we recognize lease expense for these leases on a straight-line basis over the term of the lease. In determining whether a contract contains a lease, asset and service agreements are assessed at onset and upon modification for criteria of specifically identified assets, control and economic benefit.

Other Intangible Assets, net. Other intangible assets, net consist of licensed intellectual property rights acquired in business combinations, which are reported at acquisition date fair value, less accumulated amortization. Intangible assets with finite lives are amortized over their estimated useful lives using the straight-line method.

Impairment of Long-Lived Assets. Long-lived assets with finite lives are tested for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. If indicators of impairment are present, the asset is tested for recoverability by comparing the carrying value of the asset to the related estimated undiscounted future cash flows expected to be derived from the asset. If the expected cash flows are less than the carrying value of the asset, then the asset is considered to be impaired and its carrying value is written down to fair value, based on the related estimated discounted future cash flows.

Indefinite-lived intangible assets are tested for impairment annually as of October 1 or more frequently if events or changes in circumstances between annual tests indicate that the asset may be impaired. Impairment losses on indefinite-lived intangible assets are recognized based solely on a comparison of the fair value of the asset to its carrying value.

Goodwill. Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the values assigned to the assets acquired and liabilities assumed. Goodwill is not amortized but is tested for impairment at the reporting unit level at least annually as of October 1 or when a triggering event occurs that could indicate a potential impairment by assessing qualitative factors or performing a quantitative analysis in determining whether it is more-likely-than-not that the fair value of net assets are below their carrying amounts. A reporting unit is the same as, or one level below, an operating segment. Our operations are currently comprised of a single, entity wide reporting unit. We completed our most recent annual impairment assessment as of October 1, 2019 and determined that the carrying value of our goodwill was not impaired.

Income Taxes. We account for income taxes using the asset and liability approach which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and amounts reportable for income tax purposes. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more-likely-than-not that some portion or all of the deferred tax assets will not be realized. The primary factors used to assess the likelihood of realization are our recent history of cumulative earnings or losses, expected reversals of taxable temporary timing differences, forecasts of future taxable income and available tax planning strategies that could be implemented to realize the deferred tax assets. Upon evaluating and weighting both positive and negative evidence, we concluded that we should continue to maintain the valuation allowance on the majority of our deferred tax assets as of December 31, 2019.

We recognize the tax benefit from an uncertain tax position only if it is more-likely-than-not that the position will be sustained upon examination by the taxing authorities, including resolutions of any related appeals or litigation processes, based on the technical merits of the position. The tax benefit that is recorded for these positions is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. We adjust the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions. Any interest and penalties on uncertain tax positions are included within the tax provision.

Financing Costs Related to Long-term Debt. Costs associated with obtaining long-term debt are deferred and amortized over the term of the related debt using the effective interest method. Such costs are presented as a direct deduction from the carrying amount of the long-term debt liability, consistent with debt discounts, on the consolidated balance sheets.

Net Income (Loss) Per Share. Our basic and diluted net income (loss) per share is calculated by dividing the net income (loss) by the weighted average number of shares of common stock outstanding during all periods presented. Options to purchase stock, restricted stock units, performance stock units and shares issuable upon the conversion of convertible debt are included in diluted earnings per share calculations, unless the effects are anti-dilutive.

Accumulated Other Comprehensive Income (Loss). Accumulated other comprehensive income (loss) consists of unrealized gains or losses on marketable securities that are classified as available-for-sale, foreign currency translation gains or losses and defined benefit pension obligations. For the year ended December 31, 2017, accumulated other comprehensive income (loss) included unrealized gains and losses on our long-term investment classified as available-for-sale in Calithera Biosciences, Inc. Upon adoption of ASU No. 2016-01, we recorded a $2.8 million adjustment to retained earnings as of January 1, 2018 as changes in the fair value of our equity investments are reported on our consolidated statements of operations as an unrealized gain (loss) on long term investments.

Revenue Recognition. Effective January 1, 2018, revenue-generating contracts are assessed under ASC 606, Revenue from contracts with customers, to identify distinct performance obligations, determine the transaction price of the contract and allocate the transaction price to each of the distinct performance obligations. Revenue is recognized when we have satisfied a performance obligation through transferring control of the promised good or service to a customer. Control, in this instance, may mean the ability to prevent other entities from directing the use of, and receiving benefit from, a good or service. We determine at contract inception whether we will transfer control of a promised good or service over time or satisfy the performance obligation at a point in time through analysis of the following criteria: (i) the entity has a present right to payment, (ii) the customer has legal title, (iii) the customer has physical possession, (iv) the customer has the significant risks and rewards of ownership and (v) the customer has accepted the asset. We assess collectability based primarily on the customer's payment history and on the creditworthiness of the customer.

Product Revenues

Our product revenues consist of U.S. sales of JAKAFI and European sales of ICLUSIG. Product revenues are recognized once we satisfy the performance obligation at a point in time under the revenue recognition criteria as described above. In November 2011, we began shipping JAKAFI to our customers in the U.S., which include specialty pharmacies and wholesalers. In June 2016, we acquired the right to and began shipping ICLUSIG to our customers in the European Union and certain other jurisdictions, which include retail pharmacies, hospital pharmacies and distributors.

We recognize revenues for product received by our customers net of allowances for customer credits, including estimated rebates, chargebacks, discounts, returns, distribution service fees, patient assistance programs, and government rebates, such as Medicare Part D coverage gap reimbursements in the U.S. Product shipping and handling costs are included in cost of product revenues.

Customer Credits: Our customers are offered various forms of consideration, including allowances, service fees and prompt payment discounts. We expect our customers will earn prompt payment discounts and, therefore, we deduct the full amount of these discounts from total product sales when revenues are recognized. Service fees are also deducted from total product sales as they are earned.

Rebates and Discounts: Allowances for rebates include mandated discounts under the Medicaid Drug Rebate Program in the U.S. and mandated discounts in Europe in markets where government-sponsored healthcare systems are the primary payers for healthcare. Rebates are amounts owed after the final dispensing of the product to a benefit plan participant and are based upon contractual agreements or legal requirements with public sector benefit providers. The accrual for rebates is based on statutory discount rates and expected utilization as well as historical data we have accumulated since product launches. Our estimates for expected utilization of rebates are based on data received from our customers. Rebates are generally invoiced and paid in arrears so that the accrual balance consists of an estimate of the amount expected to be incurred for the current quarter's activity, plus an accrual balance for known prior quarters' unpaid rebates. If actual future rebates vary from estimates, we may need to adjust prior period accruals, which would affect revenue in the period of adjustment.

Chargebacks: Chargebacks are discounts that occur when certain contracted customers, which currently consist primarily of group purchasing organizations, Public Health Service institutions, non-profit clinics, and Federal government entities purchasing via the Federal Supply Schedule, purchase directly from our wholesalers. Contracted customers generally purchase the product at a discounted price. The wholesalers, in turn, charges back to us the difference between the price initially paid by the wholesalers and the discounted price paid by the contracted customers. In addition to actual chargebacks received we maintain an accrual for chargebacks based on the estimated contractual discounts on the inventory levels on hand in our distribution channel. If actual future chargebacks vary from these estimates, we may need to adjust prior period accruals, which would affect revenue in the period of adjustment.

Medicare Part D Coverage Gap: Medicare Part D prescription drug benefit mandates manufacturers to fund70% of the Medicare Part D insurance coverage gap for prescription drugs sold to eligible patients. Our estimates for the expected Medicare Part D coverage gap are based on historical invoices received and in part from data received from our customers. Funding of the coverage gap is generally invoiced and paid in arrears so that the accrual balance consists of an estimate of the amount expected to be incurred for the current quarter's activity, plus an accrual balance for known prior quarters. If actual future funding varies from estimates, we may need to adjust prior period accruals, which would affect revenue in the period of adjustment.

Co-payment Assistance: Patients who have commercial insurance and meet certain eligibility requirements may receive co-payment assistance. We accrue a liability for co-payment assistance based on actual program participation and estimates of program redemption using data provided by third-party administrators.

Product Royalty Revenues

Royalty revenues on commercial sales for ruxolitinib (marketed as JAKAVI® outside the United States) by Novartis Pharmaceutical International Ltd. ("Novartis") are based on net sales of licensed products in licensed territories as provided by Novartis. Royalty revenues on commercial sales for baricitinib (marketed as OLUMIANT) by Eli Lilly and Company ("Lilly") are based on net sales of licensed products in licensed territories as provided by Lilly. We recognize royalty revenues in the period the sales occur.

Cost of Product Revenues

Cost of product revenues includes all JAKAFI related product costs as well as ICLUSIG related product costs. In addition, cost of product revenues include low single-digit royalties under our collaboration and license agreement to Novartis on all future sales of JAKAFI in the United States and the amortization of our licensed intellectual property for ICLUSIG using the straight-line method over the estimated useful life of 12.5 years from the date of acquisition on June 1, 2016 of all of the outstanding shares of ARIAD Pharmaceuticals (Luxembourg) S.à.r.l. (since renamed Incyte Biosciences Luxembourg S.à.r.l.) from ARIAD Pharmaceuticals, Inc. ("ARIAD"). Cost of product revenues also includes employee personnel costs, including stock compensation, for those employees dedicated to the production of our commercial products.

Milestone and Contract Revenues

Our license agreements, which fall within the scope of ASC 606, Revenue from Contracts with Customers, include distinct drug compound out-licensing, collection of upfront payments, milestones or royalty revenues from a counterparty, and provision of commercially available products to suppliers. Our agreements often include contractual milestones, which typically relate to the achievement of pre-specified development, regulatory and commercialization events outside of our control, such as regulatory approval of a compound, first patient dosing or achievement of sales-based thresholds. For such cases, we believe that revenue related to these events should not be recognized until the milestone has been achieved.

Some contracts form collaborative arrangements of various types with third-parties. We assess whether the nature of the arrangement is within the scope of ASC 808, Collaborative Arrangements, in conjunction with the new revenue guidance to determine the nature of the performance obligations and associated transaction prices. A collaborative relationship may exist when we participate in an activity or process with another party, such as performance of research

and development services or the exchange of intellectual property for use in clinical trials, when both parties share in the risks and rewards that result from the activity or participate and govern contract activities through a joint steering committee.

The regulatory review and approval process, which includes preclinical testing and clinical trials of each drug candidate, is lengthy, expensive and uncertain. Securing approval by the U.S. Food and Drug Administration (the "FDA") requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each indication to establish a drug candidate's safety and efficacy. The approval process takes many years, requires the expenditure of substantial resources, involves post-marketing surveillance and may involve ongoing requirements for post-marketing studies. Before commencing clinical investigations of a drug candidate in humans, we must submit an Investigational New Drug application ("IND"), which must be reviewed by the FDA.

The steps generally required before a drug may be marketed in the United States include preclinical laboratory tests, animal studies and formulation studies, submission to the FDA of an IND for human clinical testing, performance of adequate and well-controlled clinical trials in three phases, as described below, to establish the safety and efficacy of the drug for each indication, submission of a new drug application ("NDA") or biologics license application ("BLA") to the FDA for review and FDA approval of the NDA or BLA.

Similar requirements exist within foreign regulatory agencies as well. The time required satisfying the FDA requirements or similar requirements of foreign regulatory agencies may vary substantially based on the type, complexity and novelty of the product or the targeted disease.

Preclinical testing includes laboratory evaluation of product pharmacology, drug metabolism, and toxicity, which includes animal studies, to assess potential safety and efficacy as well as product chemistry, stability, formulation, development, and testing. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND. The FDA may raise safety concerns or questions about the conduct of the clinical trials included in the IND, and any of these concerns or questions must be resolved before clinical trials can proceed. We cannot be sure that submission of an IND will result in the FDA allowing clinical trials to commence. Clinical trials involve the administration of the investigational drug or the marketed drug to human subjects under the supervision of qualified investigators and in accordance with good clinical practices regulations covering the protection of human subjects. Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Phase I usually involves the initial introduction of the investigational drug into healthy volunteers to evaluate its safety, dosage tolerance, absorption, metabolism, distribution and excretion. Phase II usually involves clinical trials in a limited patient population to evaluate dosage tolerance and optimal dosage, identify possible adverse effects and safety risks, and evaluate and gain preliminary evidence of the efficacy of the drug for specific indications. Phase III clinical trials usually further evaluate clinical efficacy and safety by testing the drug in its final form in an expanded patient population, providing statistical evidence of efficacy and safety, and providing an adequate basis for labeling. We cannot guarantee that Phase I, Phase II or Phase III testing will be completed successfully within any specified period of time, if at all. Furthermore, we, the institutional review board for a trial, or the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

Generally, the milestone events contained in our collaboration agreements coincide with the progression of our drugs from development, to regulatory approval and then to commercialization. The process of successfully discovering a new development candidate, having it approved and successfully commercialized is highly uncertain. As such, the milestone payments we may earn from our partners involve a significant degree of risk to achieve. Therefore, as a drug candidate progresses through the stages of its life-cycle, the value of the drug candidate generally increases.

Research and Development Costs. Our policy is to expense research and development costs as incurred. We often contract with clinical research organizations ("CROs") to facilitate, coordinate and perform agreed upon research and development of a new drug. To ensure that research and development costs are expensed as incurred, we record monthly accruals for clinical trials and preclinical testing costs based on the work performed under the contract.

These CRO contracts typically call for the payment of fees for services at the initiation of the contract and/or upon the achievement of certain clinical trial milestones. In the event that we prepay CRO fees, we record the prepayment

as a prepaid asset and amortize the asset into research and development expense over the period of time the contracted research and development services are performed. Most professional fees, including project and clinical management, data management, monitoring, and medical writing fees are incurred throughout the contract period. These professional fees are expensed based on their percentage of completion at a particular date. Our CRO contracts generally include pass through fees. Pass through fees include, but are not limited to, regulatory expenses, investigator fees, travel costs, and other miscellaneous costs, including shipping and printing fees. We expense the costs of pass through fees under our CRO contracts as they are incurred, based on the best information available to us at the time. The estimates of the pass through fees incurred are based on the amount of work completed for the clinical trial and are monitored through correspondence with the CROs, internal reviews and a review of contractual terms. The factors utilized to derive the estimates include the number of patients enrolled, duration of the clinical trial, estimated patient attrition, screening rate and length of the dosing regimen. CRO fees incurred to set up the clinical trial are expensed during the setup period. Under our clinical trial collaboration agreements we may be reimbursed for certain development costs incurred. Such costs are recorded as a reduction of research and development expense in the period in which the related expense is incurred.

Stock Compensation. Share-based payment transactions with employees, which include stock options, restricted stock units ("RSUs") and performance shares ("PSUs"), are recognized as compensation expense over the requisite service period based on their estimated fair values as well as expected forfeiture rates. The stock compensation process requires significant judgment and the use of estimates, particularly surrounding Black-Scholes assumptions such as stock price volatility over the option term and expected option lives, as well as expected forfeiture rates and the probability of PSUs vesting. The fair value of stock options, which are subject to graded vesting, are recognized as compensation expense over the requisite service period using the accelerated attribution method. The fair value of RSUs that are subject to cliff vesting are recognized as compensation expense over the requisite service period using the straight-line attribution method, and the fair value of RSUs that are subject to graded vesting are recognized as compensation expense over the requisite service period using the accelerated attribution method. The fair value of PSUs are recognized as compensation expense beginning at the time in which the performance conditions are deemed probable of achievement, which we assess as of the end of each reporting period. Once a performance condition is considered probable, we record compensation expense based on the portion of the service period elapsed to date with respect to that award, with a cumulative catch-up, net of estimated forfeitures, and recognize any remaining compensation expense, if any, over the remaining requisite service period using the straight-line attribution method for PSUs that are subject to cliff vesting and using the accelerated attribution method for PSUs that are subject to graded vesting.

Long Term Incentive Plans. We have long term incentive plans which provide eligible employees with the opportunity to receive performance and service-based incentive compensation, which may be comprised of cash, stock options, restricted stock units and/or performance shares. The payment of cash and the grant or vesting of equity may be contingent upon the achievement of pre-determined regulatory, sales and internal performance milestones.

Acquisition-Related Contingent Consideration. Acquisition-related contingent consideration consists of our future royalty obligations on future net sales of ICLUSIG and certain potential milestone obligations for new oncology or non-oncology indications for ICLUSIG to Takeda Pharmaceutical Company Limited, which acquired ARIAD ("Takeda"). Acquisition-related contingent consideration was recorded on the acquisition date of June 1, 2016 at the estimated fair value of the obligation, in accordance with the acquisition method of accounting. The fair value measurement is based on significant inputs that are unobservable in the market and thus represents a Level 3 measurement. The fair value of the acquisition-related contingent consideration is remeasured each reporting period, with changes in fair value recorded in the consolidated statements of operations.

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02 (Topic 842 or "ASC 842"), "Leases", that requires lessees to recognize assets and liabilities on the balance sheet for most leases including operating leases. Additionally, the FASB issued clarifying guidance to the topic in ASUs No. 2018-10, No. 2018-11, No. 2018-20 and No. 2019-01 which clarified certain aspects of the new leases standard and provided an optional transition method. The guidance requires that the lessees classify leases as either a finance or operating lease and lessors classify all leases as sales-type, direct financing or operating leases. The statement of operations presentation and expense recognition for lessees for finance leases is similar to that of capital leases under ASC 840, with

separate interest and amortization expense with higher interest expense in the earlier periods of a lease. For operating leases, the statement of operations presentation and expense recognition is similar to that of operating leases under ASC 840, with a single lease cost recognized on a straight-line basis. We implemented a third-party information technology application to facilitate activities for the new accounting and disclosure requirements and implemented new internal control procedures to support the new accounting and reporting processes associated with adopting the guidance. We elected the package of practical expedients and adopted the standard on January 1, 2019 utilizing the optional transition method as defined within ASU No. 2018-11. Accordingly, prior periods were not restated to reflect the adopted standard. We did not elect the hindsight expedient and did not elect to combine lease and non-lease components into a single lease component.

As a result of adoption on January 1, 2019, we recorded $23.6 million of lease right-of-use assets, $23.7 million of lease liabilities and an adjustment to retained earnings of $0.1 million. In addition, our capital lease assets and liabilities are now classified as finance lease right-of-use assets and liabilities. The capital asset and financing liability of $18.7 million recorded in 2018 related to the Morges office building and construction, was derecognized upon adoption. The adoption of the standard did not materially impact our consolidated net income and had no impact on our consolidated cash flows.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." This guidance applies to all entities and impacts how entities account for credit losses for most financial assets and other instruments. ASU 2016-13 requires financial assets measured at amortized cost to be presented at the net amount expected to be collected. The measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amounts. An entity must use judgment in determining the relevant information and estimation methods that are appropriate in its circumstances. For trade receivables, loans and held-to-maturity debt securities, entities will be required to estimate expected credit losses over the lifetime of the asset. For available-for-sale debt securities, entities will be required to recognize an allowance for credit losses rather than an other-than-temporary impairment that reduces the cost basis of the investment. Further, an entity will recognize any improvements in estimated credit losses on its available-for-sale debt securities immediately in earnings.

The FASB also released clarifying guidance in April 2019 within ASU No. 2019-04, "Codification Improvements to Topic 326, Financial Instruments – Credit Losses," in May 2019 within ASU No. 2019-05, "Financial Instruments – Credit Losses (Topic 326): Targeted Transition Relief," and in November 2019 within ASUs No. 2019-10, "Financial Instruments – Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842)," and No. 2019-11, "Codification Improvements to Topic 326, Financial Instruments – Credit Losses." The updates provide guidance on estimating credit losses, including transition relief by allowing for election of the fair value methodology on an instrument-by-instrument basis for eligible financial instruments within the scope of ASC 825-10, and valuation of receivables from customers with troubled debt. This guidance is effective for fiscal years beginning after December 15, 2019 and interim periods therein. Elections under ASU No. 2019-05 require a modified retrospective application through a cumulative-effect adjustment in the opening balance of retained earnings upon adoption. We are currently analyzing the impact of the credit losses standard and do not anticipate the adoption of this ASU on January 1, 2020 to have a material impact on our consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, "Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting." This guidance expanded the scope of ASC 718 to include share-based payments granted to nonemployees in exchange for goods or services and supersedes the guidance in ASC 505-50. Under this new standard, nonemployee awards are measured on the grant date by estimating the fair value of the equity instruments to be issued rather than the fair value of the goods or services received. Entities may use the expected term when estimating the fair value of a nonemployee option or elect to use the contractual term as the expected term, on an award-by-award basis. The cumulative effect of the transition adjustment is to be recorded as an adjustment to retained earnings as of the beginning of the annual period of adoption. We adopted this standard for the period beginning January 1, 2019 and concluded there to be no change in our previous accounting for nonemployee awards and no impact on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement," which eliminates the required

disclosure of the amount of and reason for transfers between Level 1 and Level 2 of the fair value hierarchy. The guidance also eliminates the required disclosure of the entity's valuation process for Level 3 fair value measurements, however public entities are required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. This guidance is effective for fiscal years beginning after December 15, 2019 and interim periods therein. Early adoption is permitted for any annual periods for which financial statements have not been issued and interim periods therein. We are currently analyzing the impact of ASU No. 2018-13 and do not anticipate the adoption of this ASU on January 1, 2020 to have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-14, "Compensation – Retirement Benefits – Defined Benefit Plans – General," an update to Subtopic ASC 715-20. The guidance amended year-end disclosure requirements related to defined benefit pension plans, and does not affect interim disclosures. The guidance is effective for fiscal years ending after December 15, 2020, and is permitted for early adoption. The standard is to be applied on a retrospective basis. Incyte sponsors defined benefit plans for employees located in Europe. We are currently analyzing the impact of ASU No. 2018-14 on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles – Goodwill and Other – Internal-Use Software," an update to Subtopic ASC 350-40. The guidance directs accounting for service contracts for cloud computing arrangements to follow guidance within ASC 350-40 to determine capitalization of implementation costs. The guidance is effective for fiscal years beginning after December 15, 2019, and is permitted for early adoption. The standard may be applied on either a retrospective or prospective basis. We are currently analyzing the impact of ASU No. 2018-15 and do not anticipate the adoption of this ASU to have a material impact on our consolidated financial statements.

In November 2018, the FASB issued ASU No. 2018-18, "Collaborative Arrangements (Topic 808): Clarifying the Interaction Between Topic 808 and Topic 606." The guidance clarifies the interactions between Topic 808 and Topic 606, including clarifications on revenue recognition, unit of account, and reporting disclosure requirements. The guidance is effective for fiscal years beginning after December 15, 2019, and is permitted for early adoption. The standard is to be applied on a retrospective basis to the date of the initial application of Topic 606. We utilize collaborative arrangements as described in our license agreement footnote and are currently analyzing the impact of ASU No. 2018-18 on our consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." This guidance applies to all entities and aims to reduce the complexity of tax accounting standards while enhancing reporting disclosures. This guidance is effective for fiscal years beginning after December 15, 2020 and interim periods therein. Early adoption is permitted for any annual periods for which financial statements have not been issued and interim periods therein. We are currently analyzing the impact of ASU No. 2019-12 and do not anticipate the adoption of this ASU to have a material impact on our consolidated financial statements.

Note 2. Revenues

Revenues for the year ended December 31, 2017 were recognized under ASC 605 when (i) persuasive evidence of an arrangement existed, (ii) delivery occurred or services were rendered, (iii) the price was fixed or determinable and (iv) collectability was reasonably assured. Revenues were deferred for fees received before earned or until no further obligations existed. We exercised judgment in determining that collectability was reasonably assured or that services were delivered in accordance with the arrangement. We assessed whether the fee was fixed or determinable based on the payment terms associated with the transaction and whether the sales price was subject to refund or adjustment. Revenues for the years ended December 31, 2019 and 2018 were recognized under ASC 606 as discussed in Note 1.

The following table presents our disaggregated revenue for the periods presented (in thousands):

	For the Years Ended, December 31,		
	2019	2018	2017
JAKAFI revenues, net	$ 1,684,968	$ 1,386,964	$ 1,133,392
ICLUSIG revenues, net	89,954	79,936	66,920
Total product revenues, net	1,774,922	1,466,900	1,200,312
JAKAVI product royalty revenues	225,913	194,694	151,684
OLUMIANT product royalty revenues	80,424	40,086	9,107
Total product royalty revenues	306,337	234,780	160,791
Milestone and contract revenues	77,500	180,000	175,000
Other revenues	—	203	113
Total revenues	$ 2,158,759	$ 1,881,883	$ 1,536,216

For further information on our revenue-generating contracts,refer to our license agreements footnote.

Note 3. Marketable Securities

The following is a summary of our marketable security portfolio for the periods presented (in thousands):

	Amortized Cost	Net Unrealized Gains	Net Unrealized Losses	Estimated Fair Value
December 31, 2019				
Debt securities (corporate and government)	$284,795	$ 75	$ —	$284,870
December 31, 2018				
Debt securities (corporate and government)	$275,405	$ —	$ (1,062)	$274,343

Our debt securities generally have contractual maturity dates of between12 to 18 months.

Fair Value Measurements

FASB accounting guidance defines fair value as the price that would be received to sell an asset or paid to transfer a liability (“the exit price”) in an orderly transaction between market participants at the measurement date. The standard outlines a valuation framework and creates a fair value hierarchy in order to increase the consistency and comparability of fair value measurements and the related disclosures. In determining fair value we use quoted prices and observable inputs. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of us. The fair value hierarchy is broken down 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.

Level 2—Valuations based on observable inputs and quoted prices in active markets for similar assets and liabilities.

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

Recurring Fair Value Measurements

Our marketable securities consist of investments in corporate debt securities and U.S. government securities that are classified as available-for-sale.

At December 31, 2019 and 2018, our Level 2 corporate debt securities and U.S government securities were valued using readily available pricing sources which utilize market observable inputs, including the current interest rate and other characteristics for similar types of investments. Our long term investments classified as Level 1 were valued using their respective closing stock prices on The Nasdaq Stock Market.

Our policy is to recognize transfers out of or into fair value hierarchy levels as of the end of the reporting period. There were no transfers out of or into hierarchy levels during the years ended December 31, 2019 and 2018.

The following fair value hierarchy table presents information about each major category of our financial assets measured at fair value on a recurring basis (in thousands):

	Fair Value Measurement at Reporting Date Using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2019
Cash and cash equivalents	$ 1,832,684	$ —	$ —	$ 1,832,684
Debt securities (corporate and government)	—	284,870	—	284,870
Long term investments (Note 6)	133,657	—	—	133,657
Total assets	$ 1,966,341	$ 284,870	$ —	$ 2,251,211

	Fair Value Measurement at Reporting Date Using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2018
Cash and cash equivalents	$ 1,163,980	$ —	$ —	$ 1,163,980
Debt securities (corporate and government)	—	274,343	—	274,343
Long term investments (Note 6)	99,199	—	—	99,199
Total assets	$ 1,263,179	$ 274,343	$ —	$ 1,537,522

The following fair value hierarchy table presents information about each major category of our financial liabilities measured at fair value on a recurring basis (in thousands):

	Fair Value Measurement at Reporting Date Using:			
	Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2019
Acquisition-related contingent consideration	$ —	$ —	$ 277,000	$ 277,000
Total liabilities	$ —	$ —	$ 277,000	$ 277,000

	Fair Value Measurement at Reporting Date Using:			
	Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2018
Acquisition-related contingent consideration	$ —	$ —	$ 287,001	$ 287,001
Total liabilities	$ —	$ —	$ 287,001	$ 287,001

The following is a roll forward of our Level 3 liabilities (in thousands):

	2019	2018
Balance at January 1,	$ 287,001	$ 287,000
Contingent consideration earned during the period but not yet paid	(23,012)	(13,184)
Payments made during the period	(6,671)	(12,988)
Change in fair value of contingent consideration	19,682	26,173
Balance at December 31,	$ 277,000	$ 287,001

The fair value of the contingent consideration was determined on the date of acquisition, June 1, 2016, using an income approach based on estimated ICLUSIG revenues in the European Union and other countries for the approved third line treatment over 18 years, and discounted to present value at a rate of10%. The fair value of the contingent consideration is remeasured each reporting period, with changes in fair value recorded in the consolidated statements of operations. The change in fair value of the contingent consideration during the period ending December 31, 2019 and 2018 was due primarily to the passage of time as there were no other significant changes in the key assumptions.

We make payments to Takeda quarterly based on the royalties or any additional milestone payments earned in the previous quarter. As of December 31, 2019, contingent consideration earned but not yet paid was $23.0 million and were included in accrued and other current liabilities. As of December 31, 2018, contingent consideration earned but not yet paid was $13.2 million. The royalties earned in the third quarter of $6.7 million were included in accounts payable and the royalties earned in the fourth quarter of $6.5 million were included in accrued and other current liabilities at December 31, 2018.

Non-Recurring Fair Value Measurements

During the years ended December 31, 2019 and 2018, there were no measurements required for any assets or liabilities at fair value on a non-recurring basis.

Note 4. Concentrations of Credit Risk

In December 2009, we entered into a license, development and commercialization agreement with Lilly. In November 2009, we entered into a collaboration and license agreement with Novartis. In December 2018, we entered into a research collaboration and licensing agreement with Innovent Biologics, Inc. (“Innovent”). In July 2019, we entered into a collaboration and license agreement with Zai Lab (Shanghai) Co., Ltd., a subsidiary of Zai Lab Limited (collectively, “Zai Lab”). The concentration of credit risk related to our collaborative partners is as follows:

	Percentage of Total Milestone and Contract Revenues for the Years Ended, December 31,		
	2019	2018	2017
Collaboration Partner A	— %	33 %	37 %
Collaboration Partner B	— %	67 %	63 %
Collaboration Partner C	77 %	— %	— %
Collaboration Partner D	23 %	— %	— %

Collaboration Partners A, B, C and D comprised, in the aggregate, 30% and 42% of the accounts receivable balance as of December 31, 2019 and 2018, respectively.

In November 2011, we began commercialization and distribution of JAKAFI to a number of customers. Our product revenues are concentrated in a number of these customers. The concentration of credit risk related to our JAKAFI product revenues is as follows:

	Percentage of Total Net Product Revenues for the Years Ended, December 31,		
	2019	2018	2017
Customer A	20 %	20 %	24 %
Customer B	13 %	14 %	15 %
Customer C	16 %	15 %	13 %
Customer D	11 %	11 %	8 %

We are exposed to risks associated with extending credit to customers related to the sale of products. Customers A, B, C and D comprised, in the aggregate, 39% and 30% of the accounts receivable balance as of December 31, 2019 and 2018, respectively.

The concentration of credit risk relating to ICLUSIG product revenues or accounts receivable is not significant.

Note 5. Inventory

Our inventory balance consists of the following (in thousands):

	December 31,	
	2019	2018
Raw materials	$ 1,275	$ 481
Work-in-process	8,634	3,488
Finished goods	6,596	6,436
	16,505	10,405
Inventories-current	11,400	6,967
Inventories-noncurrent	$ 5,105	$ 3,438

Inventories, stated at the lower of cost and net realizable value, consist of raw materials, work-in-process and finished goods. At December 31, 2019, $11.4 million of inventory was classified as current on the consolidated balance sheets as we expect this inventory to be consumed for commercial use within the next twelve months. At December 31, 2019, $5.1 million of inventory was classified as non-current on the consolidated balance sheets as we did not expect this inventory to be consumed for commercial use within the next twelve months. We obtain some inventory components from a limited number of suppliers due to technology, availability, price, quality or other considerations. The loss of a supplier, the deterioration of our relationship with a supplier, or any unilateral violation of the contractual terms under which we are supplied components by a supplier could adversely affect our total revenues and gross margins.

JAKAFI and ICLUSIG raw materials and work-in-process inventory are not subject to expiration and the shelf life for finished goods inventory is 36 months from the start of manufacturing of the finished goods. We evaluate for potential excess inventory by analyzing current and future product demand relative to the remaining product shelf life. We build demand forecasts by considering factors such as, but not limited to, overall market potential, market share, market acceptance and patient usage.

Note 6. License Agreements

Novartis

In November 2009, we entered into a Collaboration and License Agreement with Novartis. Under the terms of the agreement, Novartis received exclusive development and commercialization rights outside of the United States to our JAK inhibitor ruxolitinib and certain back-up compounds for hematologic and oncology indications, including all hematological malignancies, solid tumors and myeloproliferative diseases. We retained exclusive development and

commercialization rights to JAKAFI (ruxolitinib) in the United States and in certain other indications. Novartis also received worldwide exclusive development and commercialization rights to our MET inhibitor compound capmatinib and certain back-up compounds in all indications. We retained options to co-develop and to co-promote capmatinib in the United States.

Under this agreement, we received an upfront payment and immediate milestone payment totaling $210.0 million and were initially eligible to receive up to $1.2 billion in milestone payments across multiple indications upon the achievement of pre-specified events, including up to $174.0 million for the achievement of development milestones, up to $495.0 million for the achievement of regulatory milestones and up to $500.0 million for the achievement of commercialization milestones. In April 2016, we amended this agreement to provide that Novartis has exclusive research, development and commercialization rights outside of the United States to ruxolitinib (excluding topical formulations) in the graft-versus-host-disease ("GVHD") field. We became eligible to receive up to $75.0 million of additional potential development and regulatory milestones relating to GVHD.

Exclusive of the upfront payment of $150.0 million received in 2009 and the immediate milestone of $60.0 million earned in 2010, we have recognized and received in the aggregate $132.0 million for the achievement of development milestones, $215.0 million for the achievement of regulatory milestones and $120.0 million for the achievement of sales milestones through December 31, 2019. In 2018, we recognized a $60.0 million sales milestone for Novartis achieving annual net sales of a JAK licensed product of $900.0 million. In 2017, we recognized a $40.0 million sales milestone for Novartis achieving annual net sales of a JAK licensed product of $600.0 million and a $25.0 million development milestone based on the formal initiation by Novartis of a Phase III clinical trial evaluating ruxolitinib in GVHD.

We also are eligible to receive tiered, double-digit royalties ranging from the upper-teens to the mid-twenties on future JAKAVI net sales outside of the United States, and tiered, worldwide royalties on future capmatinib net sales that range from 12% to 14%. Since the achievement of the $60.0 million regulatory milestone related to reimbursement of JAKAVI in Europe in September 2014, we are obligated to pay to Novartis tiered royalties in the low single-digits on future JAKAFI net sales within the United States. During the years ended December 31, 2019, 2018 and 2017, such royalties payable to Novartis on net sales within the United States totaled $77.6 million, $63.0 million and $50.5 million, respectively, and are reflected in cost of product revenues on the consolidated statements of operations. At December 31, 2019 and 2018, $50.2 million and $18.6 million, respectively, of accrued royalties payable to Novartis were included in accrued and other current liabilities on the consolidated balance sheets. Each company is responsible for costs relating to the development and commercialization of ruxolitinib in its respective territories, with costs of collaborative studies shared equally. Novartis is also responsible for all costs relating to the development and commercialization of capmatinib.

The Novartis agreement will continue on a program-by-program basis until Novartis has no royalty payment obligations with respect to such program or, if earlier, the termination of the agreement or any program in accordance with the terms of the agreement. Royalties are payable by Novartis on a product-by-product and country-by-country basis until the latest to occur of (i) the expiration of the last valid claim of the licensed patent rights covering the licensed product in the relevant country, (ii) the expiration of regulatory exclusivity for the licensed product in such country and (iii) a specified period from first commercial sale in such country of the licensed product by Novartis or its affiliates or sublicensees. The agreement may be terminated in its entirety or on a program-by-program basis by Novartis for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach.

Reimbursable costs incurred after the effective date of the agreement with Novartis are recorded net against the related research and development expenses. At December 31, 2019 and 2018, $0.4 million and $0.7 million, respectively, of reimbursable costs were included in accounts receivable on the consolidated balance sheets. Research and development expenses for the years ended December 31, 2019, 2018 and 2017 were net of $1.5 million, $3.2 million, and $3.0 million, respectively, of costs reimbursed by Novartis.

Milestone and contract revenue under the Novartis agreement was $0.0 million, $60.0 million and $65.0 million for the years ended December 31, 2019, 2018 and 2017, respectively. In addition, for the years ended December 31, 2019, 2018 and 2017, we recorded $225.9 million, $194.7 million and $151.7 million, respectively, of product royalty revenues related to Novartis net sales of JAKAVI outside the United States. At December 31, 2019 and 2018, $ 65.0 million and $55.4 million, respectively, of product royalties were included in accounts receivable on the consolidated balance sheets.

Lilly - Baricitinib

In December 2009, we entered into a License, Development and Commercialization Agreement with Lilly. Under the terms of the agreement, Lilly received exclusive worldwide development and commercialization rights to our JAK inhibitor baricitinib, and certain back-up compounds for inflammatory and autoimmune diseases. We received an upfront payment of $90.0 million, and were initially eligible to receive up to $665.0 million in substantive milestone payments across multiple indications upon the achievement of pre-specified events, including up to $150.0 million for the achievement of development milestones, up to $365.0 million for the achievement of regulatory milestones and up to $150.0 million for the achievement of commercialization milestones. Exclusive of the upfront payment of $90.0 million received in 2009, we have recognized and received, in aggregate, $149.0 million for the achievement of development milestones and $235.0 million for the achievement of regulatory milestones through December 31, 2019.

In January 2016, Lilly submitted an NDA to the FDA and a Marketing Authorization Application (MAA) to the European Medicines Agency for baricitinib as treatment for rheumatoid arthritis. In February 2017, we and Lilly announced that the European Commission approved baricitinib as OLUMIANT for the treatment of moderate-to-severe rheumatoid arthritis in adult patients who have responded inadequately to, or who are intolerant to, one or more disease-modifying antirheumatic drugs. In July 2017, Japan's Ministry of Health, Labor and Welfare granted marketing approval for OLUMIANT for the treatment of rheumatoid arthritis in patients with inadequate response to standard-of-care therapies. In June 2018, the FDA approved the 2mg dose of OLUMIANT for the treatment of adults with moderately-to-severely active rheumatoid arthritis who have had an inadequate response to one or more tumor necrosis factor inhibitor therapies.

In 2018, we recognized a $20.0 million development milestone for the first patient treated in the systemic lupus erythematosus Phase III program for baricitinib and a $100.0 million regulatory milestone for the FDA approval of the 2mg dose of OLUMIANT (baricitinib) for the treatment of adults with moderately-to-severely active rheumatoid arthritis. In 2017, we recognized a $30.0 million development milestone for the first patient treated in the atopic dermatitis Phase III program for baricitinib, $15.0 million regulatory milestone for the approval of baricitinib for the treatment of rheumatoid arthritis by Japan's Ministry of Health, Labor and Welfare and a $65.0 million regulatory milestone for the approval of baricitinib for the treatment of moderate-to-severe rheumatoid arthritis in adult patients by the European Commission.

We retained options to co-develop our JAK1/JAK2 inhibitors with Lilly on a compound-by-compound and indication-by-indication basis. Lilly is responsible for all costs relating to the development and commercialization of the compounds unless we elect to co-develop any compounds or indications. If we elect to co-develop any compounds and/or indications, we would be responsible for funding 30% of the associated future global development costs from the initiation of a Phase IIb trial through regulatory approval, including post-launch studies required by a regulatory authority. We would receive an incremental royalty rate increase across all tiers resulting in effective royalty rates ranging up to the high twenties on potential future global net sales for compounds and/or indications that we elect to co-develop. For indications that we elect not to co-develop, we would receive tiered, double-digit royalty payments on future global net sales with rates ranging up to 20% if the product is successfully commercialized. If we have started co-development funding for any indication, we can at any time opt out and stop future co-development cost sharing. If we elect to do this we would still be eligible for our base royalties plus an incremental pro-rated royalty commensurate with our contribution to the total co-development cost for those indications for which we co-funded. We previously had retained an option to co-promote products in the United States but, in March 2016, we waived our co-promotion option as part of an amendment to the agreement.

In July 2010, we elected to co-develop baricitinib with Lilly in rheumatoid arthritis and became responsible for funding 30% of the associated future global development costs for this indication from the initiation of the Phase IIb trial through regulatory approval, including post-launch studies required by a regulatory authority. We subsequently elected to co-develop baricitinib with Lilly in psoriatic arthritis, atopic dermatitis, alopecia areata, systemic lupus erythematosus and axial spondyloarthritis and were responsible for funding 30% of future global development costs for those indications through regulatory approval, including post-launch studies required by a regulatory authority. In April 2019, we elected to end additional co-funding of the development of baricitinib effective as of January 1, 2019. We will continue to receive royalties on global net sales of OLUMIANT, pursuant to the terms in the Lilly agreement, as described above.

We recorded no research and development expense under the Lilly agreement for co-funding the development of

baricitinib for the year ended December 31, 2019. Research and development expenses recorded under the Lilly agreement representing 30% of the global development costs for baricitinib for the treatment of rheumatoid arthritis, psoriatic arthritis, atopic dermatitis, alopecia areata, systemic lupus erythematosus and axial spondyloarthritis for the years ended December 31, 2018 and 2017 were $68.6 million and $40.8 million, respectively. At December 31, 2018, a total of $23.1 million of such costs were included in accrued and other liabilities on the consolidated balance sheets.

The Lilly agreement will continue until Lilly no longer has any royalty payment obligations or, if earlier, the termination of the agreement in accordance with its terms. Royalties are payable by Lilly on a product-by-product and country-by-country basis until the latest to occur of (i) the expiration of the last valid claim of the licensed patent rights covering the licensed product in the relevant country, (ii) the expiration of regulatory exclusivity for the licensed product in such country and (iii) a specified period from first commercial sale in such country of the licensed product by Lilly or its affiliates or sublicensees. The agreement may be terminated by Lilly for convenience, and may also be terminated under certain other circumstances, including material breach.

Milestone and contract revenue under the Lilly agreement was $0.0 million, $120.0 million and $110.0 million, respectively, for the years ended December 31, 2019, 2018 and 2017. In addition, for the years ended December 31, 2019, 2018 and 2017, we recorded $80.4 million, $40.1 million and $9.1 million, respectively, of product royalty revenues related to Lilly net sales of OLUMIANT outside the United States. At December 31, 2019 and 2018, $23.6 million and $14.0 million, respectively, of product royalties were included in accounts receivable on the consolidated balance sheets.

Lilly – Ruxolitinib

In March 2016, we entered into an amendment to the agreement with Lilly that amended the non-compete provision of the agreement to allow us to engage in the development and commercialization of ruxolitinib in the GVHD field. Upon execution of the amendment, we paid Lilly an upfront payment of $35.0 million and Lilly is eligible to receive up to $40.0 million in regulatory milestone payments relating to ruxolitinib in the GVHD field. In May 2019, the approval of JAKAFI in steroid-refractory acute GVHD triggered a $20.0 million milestone payment to Lilly.

Agenus

In January 2015, we entered into a License, Development and Commercialization Agreement with Agenus Inc. and its wholly-owned subsidiary, 4-Antibody AG (now known as Agenus Switzerland Inc.), which we collectively refer to as Agenus. Under this agreement, the parties have agreed to collaborate on the discovery of novel immuno-therapeutics using Agenus' antibody discovery platforms. The agreement became effective on February 18, 2015, upon the expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. Upon closing of the agreement, we paid Agenus total consideration of $60.0 million.

In February 2017, we and Agenus amended this agreement (the "Amended Agreement"). Under the terms of the Amended Agreement, we received exclusive worldwide development and commercialization rights to four checkpoint modulators directed against GITR, OX40, LAG-3 and TIM-3. In addition to the initial four program targets, we and Agenus have the option to jointly nominate and pursue additional targets within the framework of the collaboration, and in November 2015, three more targets were added. Targets may be designated profit-share programs, where all costs and profits are shared equally by us and Agenus, or royalty-bearing programs, where we are responsible for all costs associated with discovery, preclinical, clinical development and commercialization activities. The programs relating to GITR and OX40 and two of the undisclosed targets were profit-share programs until February 2017, while the other targets currently under collaboration are royalty-bearing programs. The Amended Agreement converted the programs relating to GITR and OX40 to royalty-bearing programs and removed from the collaboration the profit-share programs relating to the two undisclosed targets, with one reverting to us and one reverting to Agenus. Should any of those removed programs be successfully developed by a party, the other party will be eligible to receive the same milestone payments as the royalty-bearing programs and royalties at a 15% rate on global net sales. There are currently no profit-share programs. For each royalty-bearing product other than GITR and OX40, Agenus will be eligible to receive tiered royalties on global net sales ranging from 6% to 12%. For GITR and OX40, Agenus will be eligible to receive 15% royalties on global net sales.

Under the Amended Agreement, we paid Agenus $20.0 million in accelerated milestones relating to the clinical development of the GITR and OX40 programs, which was recorded in research and development expense on the consolidated statement of operations during the year ended December 31, 2017. Agenus is eligible to receive up to an additional $510.0 million in future contingent development, regulatory and commercialization milestones across all programs in the collaboration. The agreement may be terminated by us for convenience upon 12 months' notice and may also be terminated under certain other circumstances, including material breach. In June 2018, we recorded a $5.0 million development milestone due to Agenus for the LAG-3 program and in September 2018 we recorded a $5.0 million development milestone due to Agenus for the TIM-3 program, which were recorded in research and development expense on the consolidated statement of operations for the year ended December 31, 2018.

In connection with the Amended Agreement, we also agreed to purchase 10.0 million shares of Agenus Inc. common stock for an aggregate purchase price of $60.0 million in cash, or $6.00 per share. We completed the purchase of the shares on February 14, 2017, when the closing price on The Nasdaq Stock Market for Agenus Inc. shares was $4.40 per share. The shares we acquired were not registered under the Securities Act of 1933 on the purchase date and were subject to certain security specific restrictions for a period of time, and accordingly, we estimated a discount for lack of marketability on the shares on the issuance date of $4.5 million, which resulted in a net fair value of the shares on the issuance date of $39.5 million. Therefore, of the total consideration paid of $60.0 million, $39.5 million was allocated to our stock purchase in Agenus Inc. and was recorded within long term investments on the consolidated balance sheets and $20.5 million was allocated to research and development expense on the consolidated statement of operations during the year ended December 31, 2017.

We have concluded Agenus Inc. is not a VIE because it has sufficient equity to finance its activities without additional subordinated financial support and its at-risk equity holders have the characteristics of a controlling financial interest. From the date of our initial stock purchase in February 2015 and up to the date of our second stock purchase in February 2017, we owned between 9% and 11% of the outstanding shares of Agenus Inc. common stock. As a result of our February 2017 stock purchase, we owned approximately 13% of the outstanding shares of Agenus Inc. common stock as of December 31, 2019. We concluded that we have the ability to exercise significant influence, but not control, over Agenus Inc. based primarily on our ownership interest, the fact that we have been the largest Agenus stockholder since the date of our initial stock purchase, the level of intra-entity transactions between us and Agenus related to development expenses, as well as other qualitative factors. We have elected the fair value option to account for our long term investment in Agenus Inc. whereby the investment is marked to market through earnings in each reporting period. We believe the fair value option to be the most appropriate accounting method to account for securities in publicly held collaborators for which we have significant influence. For the years ended December 31, 2019, 2018 and 2017, we recorded an unrealized gain of $30.0 million, an unrealized loss of $15.6 million and an unrealized loss of $13.6 million, respectively, based on the change in fair value of Agenus Inc.'s common stock during these periods. The fair market value of our long term investment in Agenus Inc. as of December 31, 2019 and 2018 was $72.3 million and $42.3 million, respectively.

For the three and nine months ended September 30, 2019, Agenus Inc. reported total revenues of $19.9 million and $115.5 million, respectively, and net losses of $46.3 million and $80.7 million, respectively, within their consolidated financial statements. For the three and nine months ended September 30, 2018, Agenus Inc. reported total revenues of $12.8 million and $30.3 million, respectively, and net losses of $33.7 million and $113.2 million, respectively, within their consolidated financial statements. As of September 30, 2019, Agenus Inc. reported current assets of $ 107.2 million, noncurrent assets of $67.6 million, current liabilities of $132.9 million and noncurrent liabilities of $219.8 million. As of December 31, 2018, Agenus Inc. reported current assets of $74.8 million, noncurrent assets of $61.6 million, current liabilities of $68.1 million and noncurrent liabilities of $203.0 million.

Research and development expenses for the years ended December 31, 2019, 2018 and 2017, also included $1.5 million, $4.6 million and $19.5 million, respectively, of development costs incurred pursuant to the Agenus arrangement. At December 31, 2019 and 2018, a total of $1.6 million and $2.3 million, respectively, of such costs were included in accrued and other liabilities on the consolidated balance sheet.

Merus

In December 2016, we entered into a Collaboration and License Agreement with Merus N.V. ("Merus"). Under this agreement, which became effective in January 2017, the parties have agreed to collaborate with respect to the research,

discovery and development of bispecific antibodies utilizing Merus' technology platform. The collaboration encompasses up to eleven independent programs.

The most advanced collaboration program is MCLA-145, a bispecific antibody targeting PD-L1 and CD137, for which we received exclusive development and commercialization rights outside of the United States. Merus retained exclusive development and commercialization rights in the United States to MCLA-145. Each party will share equally the costs of mutually agreed global development activities for MCLA-145, and fund itself any independent development activities in its territory. Merus will be responsible for commercializing MCLA-145 in the United States and we will be responsible for commercializing it outside of the United States.

In addition to receiving rights to MCLA-145 outside of the United States, we received worldwide exclusive development and commercialization rights to up to ten additional programs. Of these ten additional programs, Merus retained the option, subject to certain conditions, to co-fund development of up to two such programs. If Merus exercises its co-funding option for a program, Merus would be responsible for funding 35% of the associated future global development costs and, for certain of such programs, would be responsible for reimbursing us for certain development costs incurred prior to the option exercise. Merus will also have the right to participate in a specified proportion of detailing activities in the United States for one of those co-developed programs. All costs related to the co-funded collaboration programs are subject to joint research and development plans and overseen by a joint development committee, but we will have final determination as to such plans in cases of dispute. We will be responsible for all research, development and commercialization costs relating to all other programs.

In February 2017, we paid Merus an upfront non-refundable payment of $120.0 million. For each program as to which Merus does not have commercialization or development co-funding rights, Merus will be eligible to receive up to $100.0 million in future contingent development and regulatory milestones, and up to $250.0 million in commercialization milestones as well as tiered royalties ranging from 6% to 10% of global net sales. For each program as to which Merus exercises its option to co-fund development, Merus will be eligible to receive a 50% share of profits (or sustain 50% of any losses) in the United States and be eligible to receive tiered royalties ranging from 6% to 10% of net sales of products outside of the United States. If Merus opts to cease co-funding a program as to which it exercised its co-development option, then Merus will no longer receive a share of profits in the United States but will be eligible to receive the same milestones from the co-funding termination date and the same tiered royalties described above with respect to programs where Merus does not have a right to co-fund development and, depending on the stage at which Merus chose to cease co-funding development costs, Merus will be eligible to receive additional royalties ranging up to 4% of net sales in the United States. For MCLA-145, we and Merus will each be eligible to receive tiered royalties on net sales in the other party's territory at rates ranging from 6% to 10%.

The Merus agreement will continue on a program-by-program basis until we have no royalty payment obligations with respect to such program or, if earlier, the termination of the agreement or any program in accordance with the terms of the agreement. The agreement may be terminated in its entirety or on a program-by-program basis by us for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach, as set forth in the agreement. If the agreement is terminated with respect to one or more programs, all rights in the terminated programs revert to Merus, subject to payment to us of a reverse royalty of up to 4% on sales of future products, if Merus elects to pursue development and commercialization of products arising from the terminated programs.

In addition, in December 2016, we entered into a Share Subscription Agreement with Merus, pursuant to which we agreed to purchase 3.2 million common shares of Merus for an aggregate purchase price of $80.0 million in cash, or $25.00 per share. We completed the purchase of the shares on January 23, 2017 when the closing price on The Nasdaq Stock Market for Merus shares was $24.50 per share. The shares we acquired were not registered under the Securities Act of 1933 on the purchase date and were subject to certain security specific restrictions for a period of time, and accordingly, we estimated a discount for lack of marketability on the shares on the issuance date of $5.6 million, which resulted in a net fair value of the shares on the issuance date of $72.8 million. Of the total consideration paid of $80.0 million, $72.8 million was allocated to our stock purchase in Merus and was recorded as a long term investment on the consolidated balance sheets and $7.2 million was allocated to research and development expense on the consolidated statement of operations during the year ended December 31, 2017. The fair market value of our total long term investment in Merus as of December 31, 2019 and 2018 was $45.1 million and $44.8 million, respectively.

We have concluded Merus is not a VIE because it has sufficient equity to finance its activities without additional subordinated financial support and its at-risk equity holders have the characteristics of a controlling financial interest. As of December 31, 2019, we owned approximately 11% of the outstanding common shares of Merus and conclude that we have the ability to exercise significant influence, but not control, over Merus based primarily on our ownership interest, the level of intra-entity transactions between us and Merus related to development expenses, as well as other qualitative factors. We have elected the fair value option to account for our long term investment in Merus whereby the investment is marked to market through earnings in each reporting period. We believe the fair value option to be the most appropriate accounting method to account for securities in publicly held collaborators for which we have significant influence. For the years ended December 31, 2019, 2018 and 2017, we recorded an unrealized gain of $0.3 million, an unrealized loss of $17.3 million, and an unrealized loss of $10.7 million, respectively, based on the change in fair value of Merus' common shares during these periods.

For the three and nine months ended September 30, 2019, Merus reported within its Form 6-K total revenues of approximately €8.1 million and €21.4 million, respectively, and net loss of approximately €8.3 million and €26.4 million, respectively, within its condensed consolidated financial statements. For the three and nine months ended September 30, 2018, Merus reported within its Form 6-K total revenues of approximately €6.5 million and €23.0 million, respectively, and net loss of approximately €10.7 million and €23.7 million, respectively, within its condensed consolidated financial statements. As of September 30, 2019, Merus reported within its Form 6-K current assets of €166.7 million, noncurrent assets of €23.1 million, current liabilities of €29.7 million and noncurrent liabilities of €89.8 million. As of December 31, 2018, Merus reported within its Form 6-K current assets of €195.6 million, noncurrent assets of €22.9 million, current liabilities of €29.0 million and noncurrent liabilities of €97.7 million.

Research and development expenses for the years ended December 31, 2019, 2018 and 2017 included $7.2 million, $10.3 million and $6.5 million, respectively, of additional development costs incurred pursuant to the Merus agreement. At December 31, 2019 and 2018, a total of $1.6 million and $2.9 million, respectively, of such costs were included in accrued and other liabilities on the consolidated balance sheets.

Calithera

In January 2017, we entered into a Collaboration and License Agreement with Calithera Biosciences, Inc. ("Calithera"). Under this agreement, we received an exclusive, worldwide license to develop and commercialize small molecule arginase inhibitors, including CB-1158, which is currently in Phase I clinical trials, for hematology and oncology indications. We have agreed to co-fund 70% of the global development costs for the development of the licensed products for hematology and oncology indications. Calithera will have the right to conduct certain clinical development under the collaboration, including combination studies of a licensed product with a proprietary compound of Calithera. We will be entitled to 60% of the profits and losses from net sales of licensed product in the United States, and Calithera will have the right to co-detail licensed products in the United States, and we have agreed to pay Calithera tiered royalties ranging from the low to mid-double digits on net sales of licensed products outside the United States. Calithera may opt out of its co-funding obligation, in which case the U.S. profit sharing will no longer be in effect, and we have agreed to pay Calithera tiered royalties ranging from the low to mid-double digits on net sales of licensed products both in the United States and outside the United States, and additional royalties to reimburse Calithera for previously incurred development costs.

In January 2017, we paid Calithera an upfront license fee of $45.0 million and have agreed to pay potential development, regulatory and sales milestone payments of over $430.0 million if the profit share is in effect, or $750.0 million if the profit share terminates. In March 2017, Calithera earned a $12.0 million milestone payment from us for the achievement of pharmacokinetic and pharmacodynamics goals for CB-1158 which was recorded in research and development expense on our consolidated statement of operations.

The Calithera agreement will continue on a product-by-product and country-by-country basis for so long as we are developing or commercializing products in the United States (if the parties are sharing profits in the United States) and until we have no further royalty payment obligations, unless earlier terminated according to the terms of the agreement. The agreement may be terminated in its entirety or on a product-by-product and/or a country-by-country basis by us for convenience. The agreement may also be terminated by us for Calithera's uncured material breach, by Calithera for our

uncured material breach and by either party for bankruptcy or patent challenge. If the agreement is terminated early with respect to one or more products or countries, all rights in the terminated products and countries revert to Calithera.

In addition, in January 2017, we entered into a Stock Purchase Agreement with Calithera for the purchase of 1.7 million common shares of Calithera for an aggregate purchase price of $8.0 million in cash, or $4.65 per share. We completed the purchase of the shares on January 30, 2017 when the closing price on The Nasdaq Stock Market was $6.75 per share. The shares we acquired were registered under the Securities Act of 1933 on the purchase date and there were no security specific restrictions for these shares, and therefore the value of the 1.7 million shares acquired by us was $11.6 million. We paid total consideration of $53.0 million to Calithera, composed of the $45.0 million upfront license fee and the $8.0 million stock purchase price. Of the $53.0 million, $11.6 million was allocated to our stock purchase in Calithera and was recorded within long term investments on the consolidated balance sheets and $41.4 million was allocated to research and development expense on the consolidated statement of operations during the year ended December 31, 2017. The fair market value of our long term investment in Calithera as of December 31, 2019 and 2018 was $9.8 million and $6.9 million, respectively.

We have concluded Calithera is not a VIE because it has sufficient equity to finance its activities without additional subordinated financial support and its at-risk equity holders have the characteristics of a controlling financial interest. As of December 31, 2019, we owned approximately 3% of the outstanding shares of Calithera common stock and there are several other stockholders who hold larger positions of Calithera. As we do not hold a significant position of the voting shares of Calithera and lack the qualitative characteristics associated with the ability to exercise significant influence, our ownership interest does not meet the criteria to be accounted for as an equity method investment. We intend to hold the investment in Calithera for the foreseeable future, and thereby have classified the investment within long term investments on the accompanying consolidated balance sheets. Under guidance implemented by ASU No. 2016-01, the investment is marked to market through earnings in each reporting period. Prior to implementation, the unrealized gains and losses on our investment in Calithera were recorded in accumulated other comprehensive income (loss). To adopt ASU No. 2016-01, the January 1, 2018 accumulated deficit balance decreased by $2.8 million to reflect these prior period unrealized gains. For the year ended December 31, 2019, 2018 and 2017, we recorded an unrealized gain of $2.9 million, an unrealized loss of $7.5 million, and an unrealized gain of $2.8 million, respectively, based on the change in fair value of Calithera's common stock during these periods.

Research and development expenses for the years ended December 31, 2019, 2018 and 2017 also included $17.9 million, $12.0 million and $23.4 million, respectively, of additional development costs incurred pursuant to the Calithera agreement. At December 31, 2019 and 2018, a total of $1.1 million and $2.6 million, respectively, of such costs were included in accrued and other liabilities on the consolidated balance sheets.

MacroGenics

In October 2017, we entered into a Global Collaboration and License Agreement with MacroGenics, Inc. ("MacroGenics"). Under this agreement, we received exclusive development and commercialization rights worldwide to MacroGenics' INCMGA0012 (formerly MGA012), an investigational monoclonal antibody that inhibits PD-1. Except as set forth in the succeeding sentence, we will have sole authority over and bear all costs and expenses in connection with the development and commercialization of INCMGA0012 in all indications, whether as a monotherapy or as part of a combination regimen. MacroGenics has retained the right to develop and commercialize, at its cost and expense, its pipeline assets in combination with INCMGA0012. In addition, MacroGenics has the right to manufacture a portion of both companies' global clinical and commercial supply needs of INCMGA0012. In December 2017, we paid MacroGenics an upfront payment of $150.0 million which was recorded in research and development expense on the consolidated statement of operations. MacroGenics was initially eligible to receive up to $420.0 million in future contingent development and regulatory milestones and up to $330.0 million in commercial milestones as well as tiered royalties ranging from 15% to 24% of global net sales. In September 2018, we recorded $10.0 million and in November 2018 we recorded $5.0 million in aggregate milestones due to MacroGenics for the achievement of certain clinical milestones as part of our collaboration and license agreement, which were recorded in research and development expense on our consolidated statement of operations for the year ended December 31, 2018.

The MacroGenics agreement will continue until we are no longer commercializing, developing or manufacturing

INCMGA0012 or, if earlier, the termination of the agreement in accordance with its terms. The agreement may be terminated in its entirety or on a licensed product by licensed product basis by us for convenience. The agreement may also be terminated by either party under certain other circumstances, including material breach, as set forth in the agreement.

Research and development expenses for the years ended December 31, 2019, 2018 and 2017, also included $1.1 million, $35.4 million and $1.1 million, respectively, of additional development costs incurred pursuant to the MacroGenics agreement. At December 31, 2019 and 2018, a total of $1.0 million and $3.2 million, respectively, of such costs were included in accrued and other liabilities on the consolidated balance sheets.

Syros

In January 2018, we entered into a target discovery, research collaboration and option agreement with Syros Pharmaceuticals, Inc. ("Syros"). Under this agreement, Syros will use its proprietary gene control platform to identify novel therapeutic targets with a focus in myeloproliferative neoplasms and we have received options to obtain exclusive worldwide rights to intellectual property resulting from the collaboration for up to seven validated targets. We will have exclusive worldwide rights to develop and commercialize any therapies under the collaboration that modulate those validated targets. We have agreed to pay Syros up to $54.0 million in target selection and option exercise fees should we decide to exercise all of our options under the agreement. For products resulting from the collaboration against each of the seven selected and validated targets, we have agreed to pay up to $50.0 million in potential development and regulatory milestones and up to $65.0 million in potential commercial milestones. Syros is also eligible to receive low single-digit royalties on net sales of products resulting from the collaboration. In January 2018, we paid Syros an upfront non-refundable (except in the event of a material breach of the agreement by Syros) payment of $10.0 million, which was recorded in research and development expense during the year ended December 31, 2018.

In addition, in January 2018, we entered into a Stock Purchase Agreement with Syros for the purchase of 0.8 million common shares of Syros for an aggregate purchase price of $10.0 million in cash, or $12.61 per share. We agreed to not sell or otherwise transfer any of our Syros shares for a period, referred to as the Lock-Up Period, of 12 months after the closing date of the sale. We completed the purchase of the shares on January 8, 2018 when the closing price on The Nasdaq Stock Market was $9.77 per share. The shares we acquired were not registered on the purchase date, and accordingly, we estimated a discount for lack of marketability on the shares of $0.1 million, which resulted in a net fair value of the shares on the issuance date of $7.6 million. Of the $10.0 million aggregate purchase price paid, $7.6 million was allocated to our stock purchase in Syros and was recorded within long term investments on the consolidated balance sheet and $2.4 million, representing premium paid on the purchase, was allocated to research and development expense on the consolidated statement of operations for the year ended December 31, 2018. Also in January 2018, we entered into an Amended Stock Purchase Agreement with Syros for the purchase of an additional 0.1 million common shares of Syros for an aggregate purchase price of $1.4 million in cash, or $9.55 per share. The shares were acquired in February 2018 and the $1.4 million aggregate purchase price was recorded within long term investments on the consolidated balance sheets. All acquired shares were subsequently registered under the Securities Act of 1933 in February 2018. The fair market value of our long term investment in Syros as of December 31, 2019 and 2018 was $6.5 million and $5.2 million, respectively.

We have concluded Syros is not a VIE because it has sufficient equity to finance its activities without additional subordinated financial support and its at-risk equity holders have the characteristics of a controlling financial interest. As of December 31, 2019, we owned approximately 2% of the outstanding shares of Syros common stock and there are several other stockholders who hold larger positions of Syros. As we do not hold a significant position of the voting shares of Syros and lack the qualitative characteristics associated with the ability to exercise significant influence, our ownership interest does not meet the criteria to be accounted for as an equity method investment. We intend to hold the investment in Syros for the foreseeable future and therefore, are accounting for our shares held in Syros at fair value under ASU No. 2016-01, and the investment is marked to market through earnings in each reporting period. Given our intent to hold the investment for the foreseeable future, we have classified the investment within long term investments on the accompanying consolidated balance sheet. For the years ended December 31, 2019 and 2018, we recorded an unrealized gain of $1.3 million and an unrealized loss of $3.7 million, respectively, based on the change in fair value of Syros' common stock during these periods.

Innovent

In December 2018, we entered into a research collaboration and licensing agreement with Innovent. Under the terms of this agreement, Innovent received exclusive development and commercialization rights to our clinical-stage product candidates pemigatinib, itacitinib and parsaclisib in hematology and oncology in mainland China, Hong Kong, Macau and Taiwan. In January 2019, we recognized an upfront payment under this agreement of $40.0 million upon our transfer of the intellectual property related to the clinical-stage product candidates to Innovent, which was recorded in milestone and contract revenues on the consolidated statement of operations for the year ended December 31, 2019. In addition, we are eligible to receive $20.0 million in connection with the first related IND filing in China, up to $129.0 million in potential development and regulatory milestones, and up to $202.5 million in potential commercial milestones. We are also eligible to receive tiered royalties from the high-teens to the low-twenties on future sales of products resulting from the collaboration. We retain an option to assist in the promotion of the three product candidates in the Innovent territories. In June 2019, we recognized the $20.0 million milestone for the first related IND filing in China which was recorded in milestone and contract revenues on the consolidated statement of operations for the year ended December 31, 2019.

Research and development expenses for the year ended December 31, 2019 were net of $6.2 million of costs reimbursed by Innovent. At December 31, 2019, $3.0 million of reimbursable costs were included in accounts receivable on the consolidated balance sheets.

Zai Lab

In July 2019, we entered into a collaboration and license agreement with Zai Lab. Under the terms of this agreement, Zai Lab received development and exclusive commercialization rights to INCMGA0012 in hematology and oncology in mainland China, Hong Kong, Macau and Taiwan. In August 2019, we recognized an upfront payment under this agreement of $17.5 million upon our transfer of technology related to the licensed product candidate to Zai Lab, which was recorded in milestone and contract revenues on the consolidated statement of operations for the year ended December 31, 2019. We are eligible to receive up to an additional $60.0 million in potential development, regulatory and commercial milestones, as well as tiered royalties from the low to mid-twenties. We also retain an option to assist in the promotion of INCMGA0012 in Zai Lab's licensed territories.

Note 7. Property and Equipment, net

Property and equipment, net consists of the following (in thousands):

	December 31,	
	2019	2018
Office equipment	$ 15,303	$ 16,955
Laboratory equipment	70,510	61,697
Computer equipment	59,069	55,436
Land	10,203	10,122
Building and leasehold improvements	208,293	213,196
Operating lease right-of-use assets	19,672	—
Construction in progress	116,387	65,576
	499,437	422,982
Less accumulated depreciation and amortization	(121,870)	(103,231)
Property and equipment, net	$ 377,567	$ 319,751

Depreciation expense, including amortization expense of leasehold improvements, was $32.1 million, $32.3 million and $24.6 million for the years ended December 31, 2019, 2018 and 2017, respectively.

In February 2018, we signed an agreement to rent a building in Morges, Switzerland for an initial term of 15 years plus one year of free rent, with multiple options to extend for an additional 20 years. The building will serve as our new European headquarters and will consist of approximately 100,000 square feet of office space. This building will allow for

consolidation of our European operations that are currently located in Geneva and Lausanne, Switzerland. Building permits were granted by the local government authorities in September 2018 and construction activity began immediately thereafter. In June 2019, we obtained control of the Morges building to begin our construction activity. At that time, we determined the lease to be a finance lease and recorded a lease liability of $31.1 million and a lease right-of-use asset of $29.1 million, net of a lease incentive from our landlord of $2.0 million. As of December 31, 2019, we have capitalized approximately $13.8 million in on site preparation, design and construction costs.

In July 2018, we signed an agreement to purchase land located in Yverdon, Switzerland. The land was purchased, in cash, for approximately $4.8 million. Upon this parcel, we are constructing a large molecule production facility. Construction activity commenced in July 2018, and as of December 31, 2019, we have capitalized approximately $82.8 million in costs for construction, ground preparation and architectural and engineering studies. We currently anticipate the facility will be completed in the second half of 2020.

As stated in Note 1, in January 2019, we adopted ASC 842, Leases, which changed the accounting and reporting of our lease activity. We are the lessee of several contracts, including those to secure fleet vehicles, buildings and equipment. Our lease agreements do not contain any material residual value guarantees or restrictive covenants. Some of our building leases include options to renew and the exercise of these options is at our discretion. Our current operating lease liabilities are reflected in accrued and other current liabilities and our noncurrent operating lease liabilities are reflected in other liabilities on the consolidated balance sheets.

As of December 31, 2019 our lease liabilities are as follows (in thousands):

Current		
Operating lease liabilities	$	9,343
Finance lease liabilities		664
Noncurrent		
Operating lease liabilities		11,854
Finance lease liabilities		31,918
Total lease liabilities	$	53,779

The cash paid for amounts included in the measurement of our operating lease liabilities for the year ended December 31, 2019 was $11.9 million in operating cash flows. The cash paid for amounts included in the measurement of our finance lease liabilities for the year ended December 31, 2019 was $0.8 million in financing cash flows.

The maturity of our lease liabilities are as follows (in thousands):

	Operating	Finance
2020	$ 10,198	$ 728
2021	6,015	2,495
2022	3,008	2,746
2023	1,594	2,754
2024	442	2,750
After 2024	962	32,522
Total lease cash payments	$ 22,219	$ 43,995
Less: discount	1,022	11,413
Present value of lease liabilities	$ 21,197	$ 32,582

As of December 31, 2019, our finance and operating leases had a weighted average lease term of approximately15.8 and 3.0 years, respectively. The discount rate of our leases is an approximation of an estimated incremental borrowing rate and is dependent upon the term and economics of each agreement. The weighted average discount rate of our finance and operating leases is approximately 3.6% and 4.5%, respectively.

For the year ended December 31, 2019, we incurred approximately $12.8 million of expense related to our operating leases, approximately $1.7 million of amortization on our finance lease right-of-use assets and approximately $0.6 million of interest expense on our finance lease liabilities.

For the year ended December 31, 2019, the cost of our short term leases with a term less than 12 months was approximately $1.1 million. We estimate rent expense for our short term leases for the next twelve months to be approximately $1.0 million. Rent expense for all leases for the years ended December 31, 2019, 2018 and 2017, was approximately $14.2 million, $9.4 million and $8.2 million, respectively.

Note 8. Intangible Assets and Goodwill

Intangible Assets, Net

The components of intangible assets were as follows (in thousands, except for useful life):

		Balance at December 31, 2019			Balance at December 31, 2018		
	Weighted-Average Useful Lives (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Finite-lived intangible assets:							
Licensed IP	12.5	$ 271,000	$ 77,172	$ 193,828	$ 271,000	$ 55,636	$ 215,364

Amortization expense was $21.5 million for the years ended December 31, 2019, 2018 and 2017 and is recorded in cost of product revenues on the consolidated statement of operations. Estimated aggregate amortization expense based on the current carrying value of amortizable intangible assets will be as follows for the years ending December 31 (in thousands):

	2020	2021	2022	2023	2024	Thereafter
Amortization expense	$ 21,536	$ 21,536	$ 21,536	$ 21,536	$ 21,536	$ 86,148

For the year ended December 31, 2017, we considered our previously acquired indefinite-lived in-process research and development asset to be impaired and recorded a $12.0 million impairment charge in research and development expense on the consolidated statements of operations. The impairment was due to the discontinuation of the ICLUSIG clinical study, OPTIC-2L, by ARIAD. OPTIC-2L was included in the initial fair value assumptions upon acquisition on June 1, 2016.

Goodwill

There were no changes to the carrying amount of goodwill for the years ended December 31, 2019 and 2018.

Note 9. Accrued and Other Current Liabilities

Accrued and other current liabilities consisted of the following (in thousands):

	December 31,	
	2019	2018
Royalties	$ 73,221	$ 25,087
Clinical related costs	88,710	98,607
Sales allowances	59,924	44,770
Construction in progress	12,732	7,673
Financing lease liability	—	18,696
Operating lease liabilities	9,343	—
Other current liabilities	42,020	34,568
Total accrued and other current liabilities	$ 285,950	$ 229,401

Note 10. Convertible Notes

The components of the convertible notes were as follows (in thousands):

Debt	Interest Rates December 31, 2019	Maturities	Carrying Amount December 31, 2019	Carrying Amount December 31, 2018
1.25% Convertible Senior Notes due 2020	1.25 %	2020	$18,300	$17,434

The carrying amount and fair value of our convertible notes were as follows (in thousands):

	December 31, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
1.25% Convertible Senior Notes due 2020	$ 18,300	$ 32,511	$ 17,434	$ 25,073

On November 14, 2013, we issued, in a private placement, $375.0 million aggregate principal amount of 0.375% Convertible Senior Notes (the "2018 Notes") and $375.0 million aggregate principal amount of 1.25% Convertible Senior Notes (the "2020 Notes"). The 2018 Notes bore interest at a rate of 0.375% per annum and the 2020 Notes bear interest at a rate of 1.25% per annum, in each case payable semi-annually in arrears in cash on May 15 and November 15, beginning on May 15, 2014. The 2018 Notes matured on November 15, 2018 and the 2020 Notes will mature on November 15, 2020, unless earlier purchased or converted. We may not redeem the 2020 Notes prior to their relevant scheduled maturity dates.

The fair value of the 2020 Notes is based on data from readily available pricing sources which utilize market observable inputs and other characteristics for similar types of instruments, and, therefore, is classified within Level 2 in the fair value hierarchy.

Prior to May 14, 2014, the 2020 Notes were not convertible except in connection with a make-whole fundamental change, as defined in the indenture. Beginning on, and including, May 15, 2014, the 2020 Notes are convertible prior to the close of business on the business day immediately preceding May 15, 2020 only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on March 31, 2014 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the 2020 Notes on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price per $1,000 principal amount of the 2020 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the 2020 Notes on each such trading day; or (iii) upon the occurrence of specified corporate events. On or after May 15, 2020 until the close of business on the second scheduled trading day immediately preceding the relevant maturity date, the 2020 Notes are convertible at any time, regardless of the foregoing circumstances. Upon conversion we will pay or deliver, as the case may be, cash, shares of common stock or a combination of cash and shares of common stock, at our election. Management's intent is to settle any conversions of the 2020 Notes in shares of our common stock. On January 1, 2020, the 2020 Notes became convertible through at least March 31, 2020, based on meeting the conversion criteria related to the sale price of our common stock during the calendar quarter ended December 31, 2019 as described in (i) above.

The initial conversion rate for the 2020 Notes is 19.3207 shares of common stock per $1,000 principal amount, equivalent to an initial conversion price of approximately $51.76 per share. The conversion rate for the 2020 Notes will be subject to adjustment for certain events but will not be adjusted for any accrued and unpaid interest. Upon the occurrence of certain fundamental changes, the holders of the 2020 Notes may require us to purchase all or a portion of their 2020 Notes for cash at a price equal to 100% of the principal amount of the 2020 Notes, plus accrued and unpaid interest, including additional interest, if any, to, but excluding, the fundamental change purchase date. In addition, if, and to the extent, a holder elects to convert any 2020 Notes in connection with a make-whole fundamental change transaction, as defined in the indenture, we will, under certain circumstances, increase the applicable conversion rate by a number of additional shares of our common stock.

Since the 2020 Notes can be settled in cash or common shares or a combination of cash and common shares at our option, we determined the embedded conversion options in the 2020 Notes are not required to be separately accounted for as a derivative. However, since the 2020 Notes are within the scope of the accounting guidance for cash convertible instruments, we are required to separate the 2020 Notes into a liability and equity component. The carrying amount of the liability component is calculated by measuring the fair value of a similar liability that does not have an associated equity component. The carrying amount of the equity component representing the embedded conversion option is determined by deducting the fair value of the liability component from the initial proceeds. The excess of the principal amount of the liability component over its carrying amount is amortized to interest expense over the expected life of a similar liability that does not have an associated equity component using the effective interest method. The equity component is not re-measured as long as it continues to meet the conditions for equity classification in the accounting guidance for contracts in an entity's own equity.

The liability component of the 2020 Notes on the date of issuance was estimated at $274.8 million, and accordingly, the equity component on the date of issuance was $100.2 million. The discount on the 2020 Notes is being amortized to interest expense over the term of the 2020 Notes, using the effective interest method. The carrying value of the 2020 Notes was $18.3 million and $17.4 million, respectively, (net of $0.8 million and $1.7 million debt discount and issuance costs, respectively) at December 31, 2019 and 2018.

During the year ended December 31, 2017, we recognized $54.9 million of expense related to senior note conversions on the consolidated statement of operations for the conversion of $367.2 million in aggregate principal amount of the 2018 Notes and $355.6 million in aggregate principal amount of the 2020 Notes in exchange for shares of our common stock and cash. Included in the conversions were those with entities affiliated with Julian C. Baker, one of our directors and principal stockholders, which agreed to exchange $259.0 million in aggregate principal amount of the 2018 Notes and $274.5 million in aggregate principal amount of the 2020 Notes for shares of our common stock.

Note 11. Stockholders' Equity

Preferred Stock. We are authorized to issue 5,000,000 shares of preferred stock, none of which was outstanding as of December 31, 2019 and 2018. The Board of Directors may determine the rights, preferences and privileges of any preferred stock issued in the future.

Common Stock. We are authorized to issue 400,000,000 shares of common stock.

Stock Compensation Plans. As of December 31, 2019, we had a total of 10,336,053 shares of our common stock available for future issuance related to our stock plans as described below.

2010 Stock Incentive Plan. In May 2010 the Board of Directors adopted the 2010 Stock Incentive Plan, which was amended and restated in April 2013 and in March 2019 (the "2010 Plan"), for issuance of common stock to employees, non-employee directors, consultants, and scientific advisors. Options are granted to employees, consultants, and scientific advisors under the 2010 Plan, pursuant to a formula determined by our Board of Directors. All options are exercisable at the fair market value of the stock on the date of grant. Non-employee director options expire after ten years.

In April 2019, our stockholders approved an increase in the number of shares of common stock reserved for issuance under the 2010 Plan from 36,753,475 to 44,453,475.

Option activity under the 2010 Stock Plan was as follows:

	Shares Subject to Outstanding Options	
	Shares	Weighted Average Exercise Price
Balance at December 31, 2018	12,285,159	$ 74.39
Options granted	3,426,061	$ 76.60
Options exercised	(2,199,835)	$ 30.68
Options cancelled	(878,728)	$ 91.33
Balance at December 31, 2019	12,632,657	$ 81.42

In July 2016, we revised the terms of our annual stock option grants to provide that new option grants would generally have a 10-year term and vest over four years, with 25% vesting after one year and the remainder vesting in 36 equal monthly installments. Previously, our option grants generally had 7-year terms and vested over three years, with 33% vesting after one year and the remainder vesting in 24 equal monthly installments.

Options to purchase a total of 6,896,492, 7,194,171 and 7,250,283 shares as of December 31, 2019, 2018 and 2017, respectively, were exercisable. The aggregate intrinsic value of options exercised for the years ended December 31, 2019, 2018 and 2017 were $113.8 million, $73.9 million and $264.2 million, respectively. At December 31, 2019 the aggregate intrinsic value of options outstanding and vested options are $162.5 million and $158.7 million, respectively.

The following table summarizes information about stock options outstanding as of December 31, 2019 under the 2010 Plan:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$13.34 - $61.75	1,273,143	1.77	$ 30.33	1,247,056	$ 29.67
$62.87 - $68.62	1,942,267	6.44	67.21	1,005,035	66.30
$68.82 - $68.97	59,644	8.84	68.95	15,913	68.95
$72.27 - $72.27	1,929,341	8.97	72.27	426,451	72.27
$72.58 - $81.60	1,267,721	4.52	74.76	938,974	73.70
$83.58 - $85.01	1,627,376	8.02	84.50	651,669	83.97
$85.34 - $95.34	1,336,692	7.69	93.50	508,940	92.76
$95.54 - $113.64	2,263,583	5.49	105.46	1,470,017	104.02
$115.19 - $134.38	906,782	7.07	128.16	615,041	128.42
$138.52 - $138.52	26,108	7.25	138.52	17,396	138.52
	12,632,657			6,896,492	

Restricted Stock Units and Performance Shares

In January 2014, we began granting RSUs and PSUs to our employees at the share price on the date of grant. Each RSU represents the right to acquire one share of our common stock. Each RSU granted prior to July 2016 was subject to cliff vesting after three years. In July 2016, we revised the terms of our RSU grants to provide that the awards will vest 25% annually over four years.

Also, in January 2014, Hervé Hoppenot, our President and Chief Executive Officer, was granted a one-time grant of 400,000 RSUs outside of our 2010 Stock Incentive Plan. Vesting of the RSUs will be subject to Mr. Hoppenot's continued employment on the applicable vesting dates, with one-sixth of the RSUs vesting at the end of each of the calendar years 2014 through 2019, subject to earlier acceleration of vesting upon the occurrence of certain events in accordance with the terms of his employment agreement. As of December 31, 2019, all of the RSUs granted to Mr. Hoppenot were vested.

In June 2018, we granted 190,000 RSUs and 446,500 PSUs under long term incentive plans with performance and/or service-based milestones with graded and/or cliff vesting over three to four years. In April 2019, we granted an additional 100,000 PSUs under one of the existing long term incentive plans with performance based milestones and cliff vesting. For one of the existing long term incentive plans, under which 106,500 PSUs were granted, the actual number of shares of our common stock into which each PSU may convert was subject to a multiplier of up to 267% based on the level at which the performance conditions were achieved. The actual number of shares of our common stock into which each PSU will convert is at a multiplier of 142% based on the performance conditions being achieved as of March 31, 2019. For an existing long term incentive plan, under which 150,000 PSUs were granted, the actual number of shares of our common stock into which each PSU may convert was subject to a multiplier of up to 100% if all performance conditions were achieved or 0% if no performance conditions were achieved. The actual number of shares of our common stock into which each PSU will convert is at a multiplier of 100% based on the performance conditions being achieved as of December 31, 2019. Compensation expense for the performance-based awards is recorded over the estimated service period for each milestone when the performance conditions are deemed probable of achievement. For the year ended December 31, 2019, the stock compensation expense recorded during the period was for service-based awards and performance conditions deemed probable of achievement and/or achieved. For PSUs containing performance conditions which were not deemed probable of achievement at December 31, 2019, no stock compensation expense was recognized.

In July 2018, we granted 77,243 PSUs to executives with a performance milestone and graded vesting over four years. The shares of our common stock into which each PSU may convert is subject to a multiplier up to 150% based on the level at which the performance condition is achieved. Compensation expense for the performance-based awards is recorded over the estimated service period when the performance condition is deemed probable of achievement. The actual number of shares of our common stock into which each PSU will convert is at a multiplier of 83% based on the performance condition being achieved as of December 31, 2018.

In July 2019, we granted 86,975 PSUs to executives with a performance milestone and graded vesting over four years. The shares of our common stock into which each PSU may convert is subject to a multiplier up to 125% based on the level at which the performance condition is achieved. Compensation expense for the performance-based awards is recorded over the estimated service period when the performance condition is deemed probable of achievement. The actual number of shares of our common stock into which each PSU will convert is at a multiplier of 101.8% based on the performance condition being achieved as of December 31, 2019.

RSU and PSU award activity under the 2010 Stock Plan was as follows:

	Shares Subject to Outstanding Awards	
	Shares	Grant Date Value
Balance at December 31, 2018	2,043,337	$ 80.35
RSUs granted	1,154,361	$ 83.23
PSUs granted	233,467	$ 79.37
RSUs released	(592,736)	$ 87.70
PSUs released	(13,325)	$ 68.62
RSUs cancelled	(184,214)	$ 83.23
PSUs cancelled	(38,514)	$ 66.16
Balance at December 31, 2019	2,602,376	$ 79.69

The following table summarizes our shares available for grant under the 2010 Plan:

	Shares Available for Grant
Balance at December 31, 2018	7,023,328
Additional authorization	7,700,000
Options, RSUs and PSUs granted	(5,983,442)
Options, RSUs and PSUs cancelled	1,142,236
Balance at December 31, 2019	9,882,122

Employee Stock Purchase Plan. On May 21, 1997, our stockholders adopted the 1997 Employee Stock Purchase Plan (the "ESPP"). Each regular full-time and part-time employee working 20 hours or more per week is eligible to participate after one month of employment. We issued 239,590, 233,712 and 157,277 shares under the ESPP in 2019, 2018 and 2017, respectively. For the years ended December 31, 2019, 2018 and 2017, we recorded stock compensation expense of $3.4 million, $3.7 million and $3.2 million, respectively, as the ESPP is considered compensatory under the FASB stock compensation rules. As of December 31, 2019, 453,931 shares remain available for issuance under the ESPP.

Note 12. Stock Compensation

We recorded $166.6 million, $148.2 million and $133.1 million, respectively, of stock compensation expense for the years ended December 31, 2019, 2018 and 2017. Stock compensation expense within our consolidated statements of operations included research and development expense for the years ended December 31, 2019, 2018 and 2017 of $114.0 million, $101.1 million and $90.4 million, respectively. Stock compensation expense within our consolidated statements of operations also included selling, general and administrative expense for the years ended December 31, 2019, 2018 and 2017 of $51.9 million, $47.1 million and $42.7 million, respectively. Stock compensation expense within our consolidated statements of operations also included cost of product revenues for the year ended December 31, 2019 of $0.7 million. For the years ended December 31, 2019 and 2018, we capitalized $0.4 million and $0.1 million, respectively, of stock compensation expense as part of the cost of an asset.

We utilized the Black-Scholes valuation model for estimating the fair value of the stock options granted, with the following weighted-average assumptions:

	Employee Stock Options For the year ended December 31,			Employee Stock Purchase Plan For the year ended December 31,		
	2019	2018	2017	2019	2018	2017
Average risk-free interest rates	2.27 %	2.61 %	1.80 %	1.82 %	2.62 %	1.53 %
Average expected life (in years)	5.27	5.26	5.25	0.50	0.50	0.50
Volatility	45 %	45 %	49 %	31 %	46 %	38 %
Weighted-average fair value (in dollars)	32.38	34.20	53.41	14.04	15.80	19.42

The risk-free interest rate is derived from the U.S. Federal Reserve rate in effect at the time of grant. The expected life calculation is based on the observed and expected time to the exercise of options by our employees based on historical exercise patterns for similar type options. Expected volatility is based on the historical volatility of our common stock over the period commensurate with the expected life of the options. A dividend yield of zero is assumed based on the fact that we have never paid cash dividends and have no present intention to pay cash dividends. Nonemployee awards are measured on the grant date by estimating the fair value of the equity instruments to be issued using the expected term, similar to our employee awards.

Based on our historical experience of employee turnover, we have assumed an annualized forfeiture rate of 5% for our options, PSUs and RSUs. Under the true-up provisions of the stock compensation guidance, we will record additional expense as the awards vest if the actual forfeiture rate is lower than we estimated, and will record a recovery of prior expense if the actual forfeiture is higher than we estimated.

Total compensation cost of options granted but not yet vested as of December 31, 2019, was $95.3 million, which is expected to be recognized over the weighted average period of 1.5 years. Total compensation cost of RSUs granted but not yet vested, as of December 31, 2019, was $86.0 million, which is expected to be recognized over the weighted average period of 1.7 years. Total compensation cost of PSUs granted but not yet vested, as of December 31, 2019, was $32.0 million, which is expected to be recognized over the weighted average period of 2.1 years, should the underlying performance conditions be deemed probable of achievement.

Note 13. Income Taxes

We are subject to U.S. federal, state and foreign corporate income taxes. The provision for income taxes is based on income (loss) before provision for income taxes as follows (in thousands):

	Year Ended December 31,		
	2019	2018	2017
U.S.	$ 712,486	$ 478,050	$ 36,493
Non-U.S.	(225,695)	(362,703)	(348,783)
Income (loss) before provision for income taxes	$ 486,791	$ 115,347	$ (312,290)

Our provision for income taxes consists of the following (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Current:			
Federal	$ 23,526	$ —	$ —
State	11,553	5,010	486
Foreign	5,183	1,303	1,171
	40,262	6,313	1,657
Deferred:			
State	(205)	111	(805)
Foreign	(172)	(570)	—
	(377)	(459)	(805)
Total provision for income taxes	$ 39,885	$ 5,854	$ 852

A reconciliation of income taxes at the U.S. federal statutory rate to the provision for income taxes is as follows (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Provision (benefit) at U.S. federal statutory rate[1]	$102,226	$ 24,223	$(109,302)
Unbenefited net operating losses and tax credits	(82,819)	(51,861)	(99,254)
Excess tax benefits related to share-based compensation	(13,418)	(8,233)	(81,021)
Deferred tax impact of Tax Cuts and Jobs Act of 2017	—	—	196,751
Foreign tax rate differential	25,419	37,061	86,777
Non-deductible officer compensation	5,213	4,114	6,351
Other	3,264	550	550
Provision for income taxes	$ 39,885	$ 5,854	$ 852

1. Statutory U.S. federal income tax rate of 21% in 2019, 21% in 2018 and 35% in 2017.

The foreign tax rate differential in the table above reflects the impact of operations in jurisdictions with tax rates that differ from the U.S. federal statutory rate.

Significant components of our deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2019	2018
Deferred tax assets:		
Net operating loss carry forwards	$ 102,001	$ 148,142
Federal and state research credits	400,550	402,798
Capitalized research and development	46,188	53,871
Deferred revenue and accruals	13,609	9,443
Non-cash compensation	67,345	58,194
Acquisition-related contingent consideration	31,956	43,676
Intangibles, net	92,806	93,730
Long term investments	14,899	23,621
Other	21,885	22,211
Total gross deferred tax assets	791,239	855,686
Less valuation allowance for deferred tax assets	(770,497)	(836,992)
Net deferred tax assets	$ 20,742	$ 18,694
Deferred tax liabilities:		
Property and equipment	$ (19,095)	$ (17,424)
Total gross deferred tax liabilities	(19,095)	(17,424)
Net deferred tax assets	$ 1,647	$ 1,270

The net deferred tax asset balance is reported in other assets, net on the consolidated balance sheets as of December 31, 2019 and 2018.

As of December 31, 2019, the Company has net operating loss ("NOL") carryforwards, research and development credit carryforwards and orphan drug tax credit carryforwards as follows (in thousands):

	Amount	Expiring if not utilized
Net operating loss carryforwards		
State	$ 279,544	2020 through 2037; indefinite
Foreign	939,949	2020 through 2026
Research and development credit carryforwards		
Federal	187,821	2031 through 2039
State	28,664	2021 through 2039; indefinite
Orphan drug tax credit carryforwards	212,410	2031 through 2039

The valuation allowance for deferred tax assets decreased by approximately $66.5 million during the year ended December 31, 2019, increased by approximately $2.2 million during the year ended December 31, 2018 and increased by approximately $14.6 million during the year ended December 31, 2017. The net valuation allowance decreased during 2019 was primarily due to the utilization of NOLs and research and development ("R&D") credits in the U.S., and a tax rate reduction impacting the value of certain foreign deferred tax assets. This was partially offset by the generation of U.S. federal R&D credits, orphan drug credits and foreign NOLs.

Valuation allowances require an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction-by-jurisdiction basis. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible.

Based upon our analysis of our historical operating results, as well as projections of our future taxable income (losses) during the periods in which the temporary differences will be recoverable, management believes the uncertainty regarding the realization of our U.S. and Swiss net deferred tax assets requires a full valuation allowance against such net

assets as of December 31, 2019. When performing our assessment on projections of future taxable income (losses), we consider factors such as the likelihood of regulatory approval and commercial success of products currently under development, among other factors.

The financial statement recognition of the benefit for a tax position is dependent upon the benefit being more likely than not to be sustainable upon audit by the applicable taxing authority. If this threshold is met, the tax benefit is then measured and recognized at the largest amount that is greater than 50% likely of being realized upon ultimate settlement. If such unrecognized tax benefits were realized and not subject to valuation allowances, we would recognize a tax benefit of $24.3 million. The following table summarizes the gross amounts of unrecognized tax benefits (in thousands):

	Year Ended December 31,	
	2019	2018
Balance at beginning of year	$ 22,395	$ 18,022
Additions related to prior periods tax positions	726	2,098
Reductions related to prior periods tax positions	(82)	—
Additions related to current period tax positions	1,835	2,466
Reductions due to lapse of applicable statute of limitations	(557)	(130)
Currency translation adjustment	(66)	(61)
Balance at end of year	$ 24,251	$ 22,395

Our policy is to recognize interest and penalties related to uncertain tax positions, if any, as a component of income tax expense. During the years ended December 31, 2019, 2018 and 2017, we recorded interest and penalties as a component of income tax expense of $0.2 million, $0.1 million and $0.3 million, respectively. We do not anticipate any significant changes to our unrecognized tax benefits during the next twelve months.

The Company files U.S. federal, state and local income tax returns and income tax returns in various foreign jurisdictions, with statutes of limitation generally ranging from three to five years during which such tax returns may be audited by the relevant tax authorities. Those statutes could be extended due to NOL or tax credit carryforwards generated during these periods that are subsequently utilized in open tax periods. In general, tax authorities have the ability to adjust the NOL carryforward or tax credits for three years after utilization of that year's tax attribute carryforward.

Note 14. Net Income (Loss) Per Share

Our basic net income (loss) per share is computed by dividing the net income (loss) by the number of weighted average common shares outstanding during the period. Our diluted net income (loss) per share is computed by dividing net income (loss) by the weighted average common shares outstanding during the period assuming potentially dilutive common shares of stock options, RSUs, PSUs and common shares issuable upon conversion of the 2018 Notes and 2020 Notes using the if-converted method. Common shares issuable upon conversion of the 2018 Notes and 2020 Notes were excluded from the diluted net income (loss) per share computation for all periods presented as their share effect was anti-dilutive.

Net income (loss) per share was calculated as follows for the periods indicated below:

(in thousands, except per share data)	Year Ended December 31, 2019	2018	2017
Basic Net Income (Loss) Per Share			
Basic net income (loss)	$ 446,906	$ 109,493	$ (313,142)
Weighted average common shares outstanding	214,913	212,383	204,580
Basic net income (loss) per share	$ 2.08	$ 0.52	$ (1.53)
Diluted Net Income (Loss) Per Share			
Diluted net income (loss)	$ 446,906	$ 109,493	$ (313,142)
Weighted average common shares outstanding	214,913	212,383	204,580
Dilutive stock options and awards	2,744	3,252	—
Weighted average shares used to compute diluted net income (loss) per share	217,657	215,635	204,580
Diluted net income (loss) per share	$ 2.05	$ 0.51	$ (1.53)

The following potential common shares were excluded from the calculation as their effect would be anti-dilutive:

	2019	2018	2017
Outstanding stock options and awards	9,349,889	8,255,992	12,585,213
Common shares issuable upon conversion of the 2018 Notes	—	—	149,375
Common shares issuable upon conversion of the 2020 Notes	368,939	368,939	368,939
Total potential common shares excluded from diluted net income (loss) per share computation	9,718,828	8,624,931	13,103,527

Note 15. Employee Benefit Plans

Defined Contribution Plans

We have a defined contribution plan qualified under Section 401(k) of the Internal Revenue Code covering all U.S. employees and defined contribution plans for other Incyte employees in Europe and Japan. Employees may contribute a portion of their compensation, which is then matched by us, subject to certain limitations. Defined contribution expense was $11.7 million, $10.5 million and $8.9 million for the years ended December 31, 2019, 2018 and 2017, respectively. Included in the 2019, 2018 and 2017 defined contribution expense was $1.6 million, $1.4 million and $1.0 million, respectively, of expense related to matching contributions under the non-U.S. defined contribution plans.

Defined Benefit Pension Plans

We have defined benefit pension plans for our employees in Europe which provide benefits to employees upon retirement, death or disability. The assets of the pension plans are held in collective investment accounts represented by the cash surrender value of an insurance policy and are classified as Level 2 within the fair value hierarchy.

The pension plans assumptions reflect the expected investment return and discount rate on plan assets and disability rate probabilities. The benefit obligation at December 31, 2019 for the plans was determined using a discount rate of 0.30% and rate of compensation increase of 2.25%. The 2019 net periodic benefit cost for the plans was determined using discount rates of 0.75%, rates of compensation increase of 2.25% and long-term expected return on plan assets of0.75%. The benefit obligation at December 31, 2018 for the plans was determined using a discount rate of 0.75%, rate of compensation increase of 2.25% and long-term expected return on plan assets of 0.75%. The 2018 net periodic benefit

cost for the plans was determined using discount rates of0.75% to 1.00%, rates of compensation increase of 2.00% to 2.25% and long-term expected return on plan assets of 0.75%.

Summarized information regarding changes in the obligations and plan assets, the funded status and the amounts recorded were as follows (in thousands):

	Year Ended December 31,	
	2019	2018
Benefit obligation, beginning of year	$ 46,038	$ 37,584
Employer service cost	5,195	4,450
Interest cost	345	278
Plan participants' contributions	1,613	1,282
Actuarial loss	6,672	698
Transfer of benefits net of payments from fund	2,184	2,268
Expenses paid from assets	(61)	(51)
Translation loss (gain)	784	(471)
Benefit obligation, end of year	62,770	46,038
Fair value of plan assets, beginning of year	30,368	24,191
Actual return on plan assets	132	95
Employer contributions	3,910	3,133
Plan participants' contributions	1,613	1,282
Transfer of benefits net of payments from fund	2,184	1,910
Expenses paid from assets	(61)	(51)
Translation loss (gain)	516	(192)
Fair value of plan assets, end of year	38,662	30,368
Unfunded liability, end of year	$ 24,108	$ 15,670

The unfunded liability is reported in other liabilities on the consolidated balance sheet as of December 31, 2019 and 2018. The accumulated benefit obligation is $52.9 million and $39.8 million as of December 31, 2019 and 2018, respectively.

The net periodic benefit cost was as follows (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Service cost	$ 5,195	$ 4,450	$ 2,836
Interest cost	345	278	190
Expected return on plan assets	(241)	(195)	(138)
Amortization of prior service cost	214	179	154
Amortization of actuarial losses	247	265	141
Net periodic benefit cost	$ 5,760	$ 4,977	$ 3,183

The components of net periodic benefit cost other than the service cost component are included inother income (expense), net on the consolidated statements of operations.

Other changes in the plans assets and the benefit obligation that is recognized in accumulated other comprehensive loss were as follows, net of tax (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Pension liability, beginning of year	$ 9,146	$ 8,450	$ 2,750
Plan change	—	—	1,276
Net prior service costs	(214)	(179)	(140)
Net loss	6,536	875	4,564
Pension liability, end of year	$ 15,468	$ 9,146	$ 8,450

The prior service cost for the pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is $0.2 million. The actuarial loss for the pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is $0.7 million.

We expect to contribute a total of $4.1 million to the pension plans in 2020.The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid (in thousands):

2020	$ 2,082
2021	2,361
2022	2,250
2023	2,293
2024	2,323
2025-2028	14,980
Total	$ 26,289

Note 16. Commitments and Contingencies

Future non-cancelable minimum lease payments as of December 31, 2019 are as follows (in thousands):

Year Ended	Operating Leases	Finance Leases
2020	$ 10,198	$ 728
2021	6,015	2,495
2022	3,008	2,746
2023	1,594	2,754
2024	442	2,750
Thereafter	962	32,522
Total minimum lease payments	$ 22,219	$ 43,995

Future non-cancelable minimum lease payments as of December 31, 2018, prior to the adoption of ASC 842, were as follows (in thousands):

Year Ended	Operating Leases	Capital Leases	Financing Lease[1]
2019	$ 12,909	$ 688	$ —
2020	8,589	472	—
2021	3,899	—	466
2022	2,011	—	2,793
2023	1,155	—	2,793
Thereafter	—	—	35,850
Total minimum lease payments	$ 28,563	$ 1,160	$ 41,902

[1] Represents the future minimum lease payments related to a lease where we were deemed, for accounting purposes, to be the owner of the building.

We have entered into and may in the future seek to license additional rights relating to technologies or drug development candidates in connection with our drug discovery and development programs. Under these licenses, we may be required to pay upfront fees, milestone payments, and royalties on sales of future products.

In December 2018, we received a civil investigative demand from the U.S. Department of Justice ("DOJ") for documents and information relating to our speaker programs and patient assistance programs, including our support of non-profit organizations that provide financial assistance to eligible patients. We have cooperated with this inquiry. In November 2019, the *qui tam* complaint underlying the DOJ inquiry was unsealed ("Complaint"), at which time we learned that a former employee whom we had terminated had made certain allegations relating to the programs described above. We then became aware that the DOJ had not intervened in the *qui tam* action, and, to our knowledge, the DOJ has not intervened to date. We filed an answer to the Complaint on January 22, 2020, and the action is proceeding. We cannot predict the outcome or the timing of the ultimate resolution of the investigation or *qui tam* action, or reasonably estimate the possible range of loss, if any, that may result from these matters. Accordingly, no reserve has been made with respect to these matters in the 2019 financial statements.

In October 2019, we entered into an agreement with Wilmington Friends School Inc., to purchase property for $50.0 million to expand our global headquarters. Under that agreement, closing of the purchase is subject to certain standard closing conditions, including an initial diligence period and a subsequent approval period.

Note 17. Segment Information

We currently operate in one operating business segment focused on the discovery, development and commercialization of proprietary therapeutics. Our chief operating decision-maker manages the operations of our company as a single operating segment. We do not operate in any material separate lines of business or separate business entities with respect to our products or product development.

During the year ended December 31, 2019, total revenues generated by subsidiaries in the United States was $2.1 billion and total revenues generated from subsidiaries in Europe was $90.0 million. During the year ended December 31, 2018, total revenues generated by subsidiaries in the United States was $1.8 billion and total revenues generated from subsidiaries in Europe was $79.9 million. During the year ended December 31, 2017, total revenues generated by subsidiaries in the United States was $1.5 billion and total revenues generated from subsidiaries in Europe was $66.9 million. As of December 31, 2019, property and equipment, net was approximately $261.7 million in the United States and approximately $109.9 million in Europe. As of December 31, 2018, property and equipment, net was approximately $252.5 million in the United States and approximately $67.3 million in Europe.

Note 18. Interim Consolidated Financial Information (Unaudited)

	Fiscal 2019 Quarter Ended			
(in thousands, except per share data)	**March 31,**	**June 30,**	**September 30,**	**December 31,**
Revenues[1]	$ 497,857	$ 529,932	$ 551,581	$ 579,389
Net income	$ 102,312	$ 105,318	$ 128,271	$ 111,005
Basic net income per share	$ 0.48	$ 0.49	$ 0.60	$ 0.51
Diluted net income per share	$ 0.47	$ 0.48	$ 0.59	$ 0.51
Shares used in computation of basic net income per share	214,065	214,620	215,199	215,770
Shares used in computation of diluted net income per share	217,061	217,483	217,791	218,542

(in thousands, except per share data)	Fiscal 2018 Quarter Ended March 31,	June 30,	September 30,	December 31,
Revenues[2]	$ 382,282	$ 521,516	$ 449,683	$ 528,402
Net income (loss)	$ (41,140)	$ 52,394	$ 29,176	$ 69,063
Basic net income (loss) per share	$ (0.19)	$ 0.25	$ 0.14	$ 0.32
Diluted net income (loss) per share	$ (0.19)	$ 0.24	$ 0.14	$ 0.32
Shares used in computation of basic net income (loss) per share	211,681	212,210	212,627	213,013
Shares used in computation of diluted net income (loss) per share	211,681	215,103	215,964	216,042

(1) The quarters ended March 31, 2019, June 30, 2019, September 30, 2019 and December 31, 2019 include $396.2 million, $433.9 million, $454.0 million, and $490.8 million, respectively, of product revenues, net, relating to JAKAFI and ICLUSIG. The quarters ended March 31, 2019, June 30, 2019, September 30, 2019 and December 31, 2019 include $61.6 million, $76.0 million, $80.1 million and $88.6 million, respectively, of product royalty revenues related to the sale of JAKAVI and OLUMIANT outside the United States. In December 2018 and July 2019, we entered into collaborative research and license agreements with Innovent and Zai Lab, respectively. The quarters ended March 31, 2019, June 30, 2019, September 30, 2019 and December 31, 2019 include $40.0 million, $20.0 million, $17.5 million and $0.0 million, respectively, of milestone and contract revenues relating to these agreements.

(2) The quarters ended March 31, 2018, June 30, 2018, September 30, 2018 and December 31, 2018 include $334.5 million, $365.5 million, $367.7 million, and $399.2 million, respectively, of product revenues, net, relating to JAKAFI and ICLUSIG. The quarters ended March 31, 2018, June 30, 2018, September 30, 2018 and December 31, 2018 include $47.7 million, $56.0 million, $61.9 million and $69.2 million, respectively, of product royalty revenues related to the sale of JAKAVI and OLUMIANT outside the United States. In November 2009 and December 2009, we entered into collaborative research and license agreements with Novartis and Lilly, respectively. The quarters ended March 31, 2018, June 30, 2018, September 30, 2018 and December 31, 2018 include $0.0 million, $100.0 million, $20.0 million and $60.0 million, respectively, of milestone and contract revenues relating to these agreements.

Note 19. Subsequent Event

In January 2020, we entered into a Collaboration and License Agreement with MorphoSys AG and MorphoSys US Inc., a wholly-owned subsidiary of MorphoSys AG (together with MorphoSys AG, "MorphoSys"), covering the worldwide development and commercialization of MOR208 (tafasitamab), an investigational Fc engineered monoclonal antibody directed against the target molecule CD19 that is currently in clinical development by MorphoSys. MorphoSys has exclusive worldwide development and commercialization rights to tafasitamab under a June 2010 collaboration and license agreement with Xencor, Inc. In December 2019, MorphoSys submitted a Biologics License Application to the FDA for tafasitamab for the treatment of relapsed or refractory diffuse large B cell lymphoma.

Under the terms of the agreement, we will receive exclusive commercialization rights outside of the United States, and MorphoSys and we will have co-commercialization rights in the United States, with respect to tafasitamab. MorphoSys will be responsible for leading the commercialization strategy and booking all revenue from sales of tafasitamab in the United States, and we and MorphoSys will both be responsible for commercialization efforts in the United States and will share equally the profits and losses from the co-commercialization efforts. We will lead the commercialization strategy outside of the United States, and will be responsible for commercialization efforts and book all revenue from sales of tafasitamab outside of the United States, subject to our royalty payment obligations set forth below. We and MorphoSys have agreed to co-develop tafasitamab and to share development costs associated with global and U.S.-specific clinical trials, with Incyte responsible for 55% of such costs and MorphoSys responsible for 45% of such costs. Each company will be responsible for funding any independent development activities, and we will be responsible for funding development activities specific to our territory. All development costs related to the collaboration will be subject to a joint development plan.

We have agreed to pay MorphoSys an upfront non-refundable payment of $750.0 million. MorphoSys will be eligible to receive up to $740.0 million in future contingent development and regulatory milestones and up to $315.0 million in commercialization milestones as well as tiered royalties ranging from the mid-teens to mid-twenties of net sales outside of the United States. MorphoSys' right to receive royalties in any particular country will expire upon the last to occur of (a) the expiration of patent rights in that particular country, (b) a specified period of time after the first post-marketing authorization sale of a licensed product comprising tafasitamab in that country, and (c) the expiration of any regulatory exclusivity for that licensed product in that country.

The effectiveness of the agreement is conditioned on the early termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 as well as clearance by the German and Austrian antitrust authorities; however, certain confidentiality and antitrust filing provisions became effective upon execution of the agreement.

In addition, under the collaboration agreement and pursuant to a related purchase agreement, we have agreed to purchase American Depositary Shares ("ADSs"), each representing 0.25 of an ordinary share of MorphoSys AG, for an aggregate purchase price of $150 million (such ADSs to be purchased, the "New ADSs"). Under the purchase agreement, we have agreed, subject to limited exceptions, not to sell or otherwise transfer any of the New ADSs for an 18-month period. Closing of the purchase of the New ADSs is subject to customary conditions, as well as the effectiveness of the collaboration agreement described above.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

Item 9A. ***Controls and Procedures***

Evaluation of disclosure controls and procedures. We maintain "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act"), that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Our disclosure controls and procedures have been designed to meet reasonable assurance standards. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Annual Report on Form 10-K, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in internal control over financial reporting. There were no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) for the quarter ended December 31, 2019, that materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management's annual report on internal control over financial reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of the 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. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on our evaluation under the framework in *Internal Control—Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2019. The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Incyte Corporation

Opinion on Internal Control over Financial Reporting

We have audited Incyte Corporation'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, Incyte Corporation (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Incyte Corporation as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and our report dated February 13, 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 Annual 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

Philadelphia, Pennsylvania
February 13, 2020

Item 9B. ***Other Information***

None.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance***

The information required by this item (with respect to Directors) is incorporated by reference from the information under the caption "Election of Directors" contained in our Proxy Statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for our 2020 Annual Meeting of Stockholders to be held on May 26, 2020 (the "Proxy Statement"). Certain information required by this item concerning executive officers is set forth in Part I of this Report under the caption "Information about our Executive Officers" and is incorporated herein by reference.

Item 405 of Regulation S-K calls for disclosure of any known late filing or failure by an insider to file a report required by Section 16(a) of the Exchange Act. To the extent disclosure for delinquent reports is being made, it can be found under the caption "Delinquent Section 16(a) Reports" in the Proxy Statement and is incorporated herein by reference.

We have adopted a Code of Business Conduct and Ethics that applies to all of our officers and employees, including our Chief Executive Officer, Chief Financial Officer, Principal Accounting Officer, Corporate Controller and other employees who perform financial or accounting functions. The Code of Business Conduct and Ethics sets forth the basic principles that guide the business conduct of our employees. We have also adopted a Senior Financial Officers' Code of Ethics that specifically applies to our Chief Executive Officer, Chief Financial Officer, Principal Accounting Officer, Corporate Controller, and others providing similar functions. Stockholders may request a free copy of our Code of Business Conduct and Ethics and our Senior Financial Officers' Code of Ethics by contacting Incyte Corporation, Attention: Investor Relations, 1801 Augustine Cut-Off, Wilmington, DE 19803 or by visiting the Corporate Governance section of our website at *investor.incyte.com/corporate-governance*. Our website address listed in the prior sentence and below is intended to be an inactive, textual reference only. None of the materials on, or accessible through, our website is part of this report or is incorporated by reference herein.

To date, there have been no waivers under our Code of Business Conduct and Ethics or Senior Financial Officers' Code of Ethics. We intend to disclose future amendments to certain provisions of our Code of Business Conduct and Ethics or Senior Financial Officers' Code of Ethics or any waivers, if and when granted, of our Code of Business Conduct and Ethics or Senior Financial Officers' Code of Ethics on our website at *www.incyte.com* within four business days following the date of such amendment or waiver.

Our Board of Directors has appointed an Audit and Finance Committee of four directors, currently comprised of Mr. Paul J. Clancy, as Chairman, Mr. Paul A. Brooke, Ms. Wendy Dixon and Dr. Jacqualyn A. Fouse. The Board of Directors has also determined that Mr. Clancy, Mr. Brooke and Dr. Fouse are each qualified as an Audit Committee Financial Expert under the definition outlined by the Securities and Exchange Commission. In addition, each of the members of the Audit Committee qualifies as an "independent director" under the applicable standards of The Nasdaq Stock Market.

Item 11. ***Executive Compensation***

The information required by this item is incorporated by reference from the information under the captions "Compensation of Directors" and "Executive Compensation" contained in the Proxy Statement.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***

The information required by this item is incorporated by reference from the information under the captions "Equity Compensation Plan Information" and "Security Ownership of Certain Beneficial Owners and Management" contained in the Proxy Statement.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence***

The information required by this item is incorporated by reference from the information under the captions "Corporate Governance—Certain Relationships and Related Transactions" and "Corporate Governance—Director Independence" contained in the Proxy Statement.

Item 14. ***Principal Accountant Fees and Services***

The information required by this item is incorporated by reference from the information under the caption "Ratification of Independent Registered Public Accounting Firm" contained in the Proxy Statement.

PART IV

Item 15. ***Exhibits, Financial Statement Schedules***

(a) Documents filed as part of this report:

(1) Financial Statements

Reference is made to the Index to Consolidated Financial Statements of Incyte Corporation under Item 8 of Part II hereof.

(2) Financial Statement Schedules

All financial statement schedules have been omitted because they are not applicable or not required or because the information is included elsewhere in the Consolidated Financial Statements or the Notes thereto.

(3) Exhibits

See Item 15(b) below. Each management contract or compensatory plan or arrangement required to be filed has been identified.

(b) Exhibits

Exhibit Number	Description of Document
3(i)	Integrated copy of the Restated Certificate of Incorporation, as amended, of the Company (incorporated by reference to Exhibit 3(i) to the Company's Annual Report on Form 10-K for the year ended December 31, 2009).
3(ii)	Bylaws of the Company, as amended as of November 15, 2017 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed November 17, 2017).
4.1	Form of Common Stock Certificate (incorporated by reference to the exhibit of the same number to the Company's Annual Report on Form 10-K for the year ended December 31, 2002).
4.2	Indenture, dated as of November 14, 2013, between the Company and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed November 14, 2013).
4.3*	Description of Registrant's Securities Registered under Section 12 of the Securities Exchange Act of 1934.
10.1#	Incyte Corporation Amended and Restated 2010 Stock Incentive Plan, as amended and restated March 18, 2019 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed April 30, 2019).

Exhibit Number	Description of Document
10.2#	Form of Stock Option Agreement for Executive Officers under the Incyte Corporation Amended and Restated 2010 Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016).
10.3#	Form of Nonstatutory Stock Option Agreement under the 2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014).
10.4#	Form of Incentive Stock Option Agreement under the 2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014).
10.5#	Form of Nonstatutory Stock Option Agreement for Outside Directors under the 2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K for the year ended December 31, 2013).
10.6#	Form of Restricted Stock Unit Award Agreement under the 2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014).
10.7#	Form of Performance Share Award Agreement under the Amended and Restated 2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018).
10.8#	Form of Restricted Stock Unit Award Agreement for Outside Directors under the Amended and Restated 2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019).
10.9#	Form of Indemnity Agreement between the Company and its directors and officers (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-1 (File No. 33 68138)).
10.10#	1997 Employee Stock Purchase Plan of Incyte Corporation, as amended (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed May 27, 2016).
10.11#	Form of Employment Agreement between the Company and Barry P. Flannelly (effective as of August 11, 2014), Christiana Stamoulis (effective as of February 11, 2019), Steven H. Stein (effective as of March 2, 2015), Vijay K. Iyengar (effective as of May 9, 2016), Maria E. Pasquale (effective as of April 9, 2018) and Dashyant Dhanak (effective as of December 10, 2018) (incorporated by reference to Exhibit 10.14 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012).
10.12#	Form of Amended and Restated Employment Agreement, effective as of April 18, 2012, between the Company and Paula J. Swain and Wenqing Yao (incorporated by reference to Exhibit 10.14 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
10.13#	Offer of Employment Letter, dated December 14, 2018, from the Company to Christiana Stamoulis (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019).
10.14#	Amended and Restated Employment Agreement between the Company and Hervé Hoppenot, dated as of October 25, 2019 (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.15†	Collaboration and License Agreement entered into as of November 24, 2009, by and between the Company and Novartis International Pharmaceutical Ltd. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.15.1†	Amendment, dated as of April 5, 2016, to Collaboration and License Agreement entered into as of November 24, 2009, by and between the Company and Novartis International Pharmaceutical Ltd. (incorporated by reference to Exhibit 10.1.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.16†	License, Development and Commercialization Agreement, entered into as of December 18, 2009, by and between the Company and Eli Lilly and Company (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.16.1†	Amendment, dated June 22, 2010, to License, Development and Commercialization Agreement entered into as of December 18, 2009, by and between the Company and Eli Lilly and Company (incorporated by reference to Exhibit 10.2.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).

Exhibit Number	Description of Document
10.16.2†	Third Amendment, entered into effective March 31, 2016, to License, Development and Commercialization Agreement entered into as of December 18, 2009, by and between the Company and Eli Lilly and Company (incorporated by reference to Exhibit 10.2.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.16.3†	Fourth Amendment, entered into effective December 13, 2016, to License, Development and Commercialization Agreement entered into as of December 18, 2009, by and between the Company and Eli Lilly and Company (incorporated by reference to Exhibit 10.21.4 to Amendment No. 2 on Form 10-K/A to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.17†	License, Development and Commercialization Agreement, dated as of January 9, 2015, by and among the Company, Incyte Europe S.à.r.l. (a wholly owned subsidiary of the Company), Agenus Inc. and 4-Antibody AG (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015).
10.17.1†	First Amendment, dated as of February 14, 2017, to License, Development and Commercialization Agreement entered into as of January 9, 2015, by and among the Company, Incyte Europe S.à.r.l. (a wholly owned subsidiary of the Company), Agenus Inc. and Agenus Switzerland Inc. (f/k/a 4-Antibody AG) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.18†	Amended and Restated Buy-In License Agreement, dated as of June 1, 2016, between ARIAD Pharmaceuticals, Inc., ARIAD Pharmaceuticals (Europe) S.à.r.l. and the Company, as guarantor (incorporated by reference to Exhibit 10.3 to Amendment No. 1 on Form 10-Q/A to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016).
10.19†	Collaboration and License Agreement, dated December 20, 2016, by and between the Company and Merus N.V. (incorporated by reference to Exhibit 10.27 to Amendment No. 2 on Form 10-K/A to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.20†	Global Collaboration and License Agreement, dated October 24, 2017, by and between the Company and MacroGenics, Inc. (incorporated by reference to Exhibit 10.23 to the Company's Annual Report on Form 10-K for the year ended December 31, 2017).
10.20.1†	Amendment No. 1, dated as of March 15, 2018, to Global Collaboration and License Agreement, dated October 24, 2017, by and between the Company and MacroGenics, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.21	Registration Rights Agreement, dated as of February 12, 2016, between the Company and 667, L.P., Baker Brothers Life Sciences, L.P. and 14159, L.P. (incorporated by reference to Exhibit 10.28 to the Company's Annual Report on Form 10-K for the year ended December 31, 2015).
21.1*	Subsidiaries of the Company.
23.1*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
24.1*	Power of Attorney.
31.1*	Rule 13a 14(a) Certification of the Chief Executive Officer.
31.2*	Rule 13a 14(a) Certification of the Chief Financial Officer.
32.1**	Statement of the Chief Executive Officer under Section 906 of the Sarbanes Oxley Act of 2002 (18 U.S.C Section 1350).
32.2**	Statement of the Chief Financial Officer under Section 906 of the Sarbanes Oxley Act of 2002 (18 U.S.C Section 1350).
101	XBRL Instance – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Presentation Linkbase Document
101.DEF*	XBRL Taxonomy Definition Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

* Filed herewith.

** In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release Nos. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Form 10-K and will not be deemed "filed" for purpose of Section 18 of the Exchange Act. Such certifications will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.

† Confidential treatment has been granted with respect to certain portions of these agreements.

# Indicates management contract or compensatory plan or arrangement.

Copies of above exhibits not contained herein are available to any stockholder upon written request to: Investor Relations, Incyte Corporation, 1801 Augustine Cut-Off, Wilmington, DE 19803.

(c) Financial Statements and Schedules

Reference is made to Item 15(a)(2) above.

Item 16. ***Form 10-K Summary.***

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INCYTE CORPORATION
By: /s/ Hervé Hoppenot

Hervé Hoppenot
Chairman, President, and Chief Executive Officer

Date: February 13, 2020

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Hervé Hoppenot, Christiana Stamoulis, and Maria E. Pasquale, and each of them, his true and lawful attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their 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/ Hervé Hoppenot Hervé Hoppenot	Chairman, President, and Chief Executive Officer (Principal Executive Officer) and Director	February 13, 2020
/s/ Christiana Stamoulis Christiana Stamoulis	Chief Financial Officer (Principal Financial Officer)	February 13, 2020
/s/ Paul Trower Paul Trower	VP, Finance (Principal Accounting Officer)	February 13, 2020
/s/ Julian C. Baker Julian C. Baker	Director	February 13, 2020
/s/ Jean-Jacques Bienaimé Jean-Jacques Bienaimé	Director	February 13, 2020
/s/ Paul A. Brooke Paul A. Brooke	Director	February 13, 2020
/s/ Paul J. Clancy Paul J. Clancy	Director	February 13, 2020
/s/ Wendy L. Dixon Wendy L. Dixon	Director	February 13, 2020
/s/ Jacqualyn A. Fouse Jacqualyn A. Fouse	Director	February 13, 2020
/s/ Paul A. Friedman Paul A. Friedman	Director	February 13, 2020
/s/ Edmund P. Harrigan Edmund P. Harrigan	Director	February 13, 2020

Exhibit 4.3

INCYTE CORPORATION
DESCRIPTION OF SECURITIES REGISTERED UNDER
SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Incyte Corporation, a Delaware corporation ("we," "us" or "our") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934: our common stock, $.001 par value per share. The general terms and provisions of our common stock are summarized below. This summary does not purport to be complete and is qualified by reference to our restated certificate of incorporation and our bylaws, each of which has been filed as an exhibit to our most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC"), as may be amended by a

document filed with one of our periodic reports filed with the SEC subsequent to the date of that Annual Report. References to "we," "us" and "our" in this document mean Incyte Corporation, a Delaware corporation.

Common Stock

We are authorized to issue 400,000,000 shares of common stock. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our restated certificate of incorporation. This means that the holders of a majority of the shares voted can elect all of the directors then standing for election. Subject to preferences that may apply to shares of our preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of assets legally available at the times and in the amounts that our board of directors may determine from time to time. Upon our liquidation, dissolution or winding-up, the holders of common stock are entitled to share ratably in all assets remaining after payment of all liabilities and the liquidation preferences of any outstanding preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All issued and outstanding shares of common stock are fully paid and nonassessable.

Certain Provisions of Delaware Law and of the Charter and Bylaws

The provisions of Delaware law, our restated certificate of incorporation and our bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Delaware Law. We are subject to the provisions of Section 203 of the General Corporation Law of the State of Delaware regulating corporate takeovers. In general, those provisions prohibit a publicly-held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- prior to the date of the transaction, 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 completion of the transaction that 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 (1) shares owned by persons who are directors and also officers and (2) shares owned by 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
- on or after the date the business combination is approved by the board of directors of the corporation and authorized at a meeting of stockholders by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially 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.

In general, Section 203 defines an interested stockholder as any 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 any of these entities or persons.

A Delaware corporation may opt out of these provisions either with an express provision in its original certificate of incorporation or in an amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out, and do not currently intend to opt out of, these provisions. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

Charter and Bylaws. Our restated certificate of incorporation and bylaws include provisions that:

- specify that stockholders may not call special meetings of the stockholders or fill vacancies on the board;
- authorize our board of directors to issue, without further action by stockholders, up to 5,000,000 shares of preferred stock in one or more series, with such designations, powers, preferences and other rights as our board of directors may authorize;
- establish an advance notice procedure for stockholder proposals to be brought before an annual or special meeting of our stockholders, including proposed nominations of persons for election to our board of directors; and
- require us to indemnify officers and directors against losses that they may incur in investigations and legal proceedings resulting from their services to us, which may include services in connection with takeover defense measures.

Transfer Agent

The transfer agent and registrar for our common stock is Computershare.

Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol "INCY."

Exhibit 21.1

SUBSIDIARIES

Subsidiary	Jurisdiction of Incorporation
Incyte Biosciences Corporation	Delaware
Incyte Holdings Corporation	Delaware
Incyte Biosciences Canada Corporation	Canada
Incyte International Holdings Corporation	Delaware
Incyte Research Institute LLC	Delaware
Mighty Oak Insurance Company	Delaware
Incyte International Holdings S.à r.l.	Luxembourg
Incyte Biosciences International S.à r.l.	Switzerland
Incyte Biosciences Austria GmbH	Austria
Incyte Biosciences Denmark ApS	Denmark
Incyte Biosciences Finland Oy	Finland
Incyte Biosciences France	France
Incyte Biosciences Germany GmbH	Germany
Incyte Biosciences Italy S.R.L.	Italy
Incyte Biosciences Israel Ltd	Israel
Incyte Biosciences Distribution B.V.	Netherlands
Incyte Biosciences Benelux B.V.	Netherlands
Incyte Biosciences Norway AS	Norway

Incyte Biosciences Iberia S.L.	Spain
Incyte Biosciences Nordic AB	Sweden
Incyte Biosciences UK Ltd	UK
Incyte Biosciences Technical Operations S.à r.l.	Switzerland
Incyte Biosciences Australia Pty Ltd	Australia
Incyte Biosciences Canada ULC	Canada
Incyte Biosciences Japan G.K.	Japan
Incyte Biosciences (Shanghai) Co., Ltd.	China

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

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

(1) Registration Statement (Form S-3 No. 333-229682) of Incyte Corporation,

(2) Registration Statements (Form S-8 Nos. 333-91556, 333-125995, and 333-160006) pertaining to the 1993 Directors' Stock Option Plan of Incyte Corporation,

(3) Registration Statement (Form S-8 No. 333-160005) pertaining to the 1991 Stock Plan of Incyte Corporation,

(4) Registration Statements (Form S-8 Nos. 333-174919 and 333-212102) pertaining to the Incyte Corporation 1997 Employee Stock Purchase Plan,

(5) Registration Statements (Form S-8 Nos. 333-174918, 333-182218, 333-189424, 333-197907, 333-212104, and 333-231129) pertaining to the Incyte Corporation Amended and Restated 2010 Stock Incentive Plan,

(6) Registration Statement (Form S-8 No. 333-193333) pertaining to the 2014 Restricted Stock Unit Award Agreement between Incyte Corporation and Hervé Hoppenot;

of our reports dated February 13, 2020, with respect to the consolidated financial statements of Incyte Corporation and the effectiveness of internal control over financial reporting of Incyte Corporation, included in this Annual Report (Form 10-K) of Incyte Corporation for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Philadelphia, Pennsylvania
February 13, 2020

Exhibit 31.1

CERTIFICATION

I, Hervé Hoppenot, certify that:

1. I have reviewed this annual report on Form 10-K of Incyte Corporation;

2. Based on my knowledge, this 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 report;

3. Based on my knowledge, the financial statements, and other financial information included in this 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 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 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 report based on such evaluation; and

d) Disclosed in this 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 13, 2020

/s/ Hervé Hoppenot

Hervé Hoppenot
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Christiana Stamoulis, certify that:

1. I have reviewed this annual report on Form 10-K of Incyte Corporation;

2. Based on my knowledge, this 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 report;

3. Based on my knowledge, the financial statements, and other financial information included in this 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 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 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 report based on such evaluation; and

d) Disclosed in this 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 13, 2020

/s/ Christiana Stamoulis

Christiana Stamoulis
Chief Financial Officer

Exhibit 32.1

STATEMENT PURSUANT TO
18 U.S.C. SECTION 1350

With reference to the Annual Report of Incyte Corporation (the "Company") on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Hervé Hoppenot, Chief Executive Officer of the Company, certify, for the purposes of 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Hervé Hoppenot

Hervé Hoppenot
Chief Executive Officer
February 13, 2020

Exhibit 32.2

STATEMENT PURSUANT TO
18 U.S.C. SECTION 1350

With reference to the Annual Report of Incyte Corporation (the "Company") on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Christiana Stamoulis, Chief Financial Officer of the Company, certify, for the purposes of 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Christiana Stamoulis

Christiana Stamoulis
Chief Financial Officer
February 13, 2020
