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, 2016

☐ 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 333-215372

JOUNCE THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	45-4870634
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1030 Massachusetts Avenue Cambridge, Massachusetts	02138
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (857) 259-3840

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

Title of each class	Name of each exchange on which registered
Common Stock, $0.001 par value per share	NASDAQ Global Select Market

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

Large accelerated filer ☐	Non-accelerated filer ☒ (Do not check if a smaller reporting company)	Accelerated filer ☐	Smaller reporting company ☐

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 the registrant's voting and non-voting common stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) computed by reference to the price at which the common stock was last sold on March 1, 2017 was $398.5 million. The registrant has provided this information as of March 1, 2017 because the registrant was not a public company as of the last business day of its most recently completed second fiscal quarter and therefore cannot calculate the aggregate market value of its voting and non-voting equity held by non-affiliates as of such date.

As of March 1, 2017, there were 32,164,469 shares of common stock, $0.001 par value per share, outstanding.

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References to Jounce

Throughout this Annual Report on Form 10-K, the "Company," "Jounce," "Jounce Therapeutics," "we," "us," and "our," except where the context requires otherwise, refers to Jounce Therapeutics, Inc. and "our board of directors" refers to the board of directors of Jounce Therapeutics, Inc.

Cautionary Note Regarding Forward-Looking Statements and Industry Data

This Annual Report on Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

The words "anticipate," "believe," "estimate," "anticipate," "expect," "intend," "may," "plan," "predict," "project," "would", "will," "target", "goal", "could," "should, "potential," "continue" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward looking statements include, among other things, statements about:

- the timing, progress, and results of preclinical studies and clinical trials for JTX-2011, JTX-4014 and any future product candidates we may develop, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available, and our research and development programs;
- the timing, scope, or likelihood of regulatory filings and approvals, including timing of our BLA filing for, and final FDA approval of, JTX-2011 and JTX-4014;
- the timing, scope, or likelihood of foreign regulatory filings and approvals;
- our ability to use our Translational Science Platform to identify targets for additional product candidates and to match immunotherapies to select patient subsets;
- our ability to develop and advance any future product candidates into, and successfully complete, clinical studies;
- our ability to develop combination therapies, whether on our own or in collaboration with Celgene and other third parties, for JTX-2011 and JTX-4014;
- our expectations regarding the size of the patient populations for JTX-2011 and JTX-4014, if approved for commercial use, and any additional product candidates we may develop;
- our commercialization and marketing capabilities and strategy;
- the pricing and reimbursement of JTX-2011, JTX-4014 and any additional product candidates we may develop, if approved;
- the implementation of our business model and our strategic plans for our business, JTX-2011, JTX-4014 and any additional product candidates we may develop, and our technology;
- the rate and degree of market acceptance and clinical utility of JTX-2011, JTX-4014 and any additional product candidates we may develop;
- the potential benefits of and our ability to maintain our collaboration with Celgene, and establish or maintain future collaborations or strategic relationships or obtain additional funding;
- our ability to retain the continued service of our key professionals and to identify, hire and retain additional qualified professionals;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering JTX-2011, JTX-4014 and any additional product candidates we may develop, and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;

- our competitive position, and developments and projections relating to our competitors and our industry;
- our expectations related to the use of proceeds;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- the impact of laws and regulations; and
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act.

There are a number of important risks and uncertainties that could cause our actual results to differ materially from those indicated by forward-looking statements. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Annual Report on Form 10-K, particularly in the section entitled “Risk Factors” in Part I that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make.

You should read this Annual Report on Form 10-K and the documents that we have filed as exhibits to this Annual Report on Form 10-K completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this Annual Report on Form 10-K are made as of the date of this Annual Report on Form 10-K,and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

This Annual Report on Form 10-K includes industry and market data, which we obtained from our own internal estimates and research, as well as from industry and general publications and research, surveys, and studies conducted by third parties. Industry publications, studies, and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that each of these studies and publications is reliable, we have not independently verified market and industry data from third-party sources. While we believe our internal company research is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source.

PART I

ITEM 1. Business

Overview

We are a clinical stage immunotherapy company dedicated to transforming the treatment of cancer by developing therapies that enable the immune system to attack tumors and provide long-lasting benefits to patients. Through the use of our Translational Science Platform, we first focus on specific cell types within tumors to prioritize targets, and then identify related biomarkers designed to match the right therapy to the right patient. Our strategy is to create immunotherapies targeting a variety of the diverse cellular components of the immune system, as well as non-immune cells resident within the tumor, all of which can vary greatly among tumors within and across indications. This may provide benefit to patients with tumors across the spectrum from highly inflamed, or hot, to poorly inflamed, or cold, and especially those not well served by current therapies. We believe the early identification of potential predictive biomarkers to prospectively enrich for biomarker positive cancer patients, from across many indications, may lead to shortened development timelines for our new immunotherapies. Our approach is designed to lead to a larger effect size by first identifying and then focusing on a smaller biomarker positive study population. Through this two-pronged approach, we believe our Translational Science Platform enables us to effectively and efficiently identify and develop new cancer immunotherapies.

- **Targeting T cells:** Our lead product candidate, JTX-2011, is a clinical stage monoclonal antibody that binds to and activates ICOS, a protein on the surface of certain T cells commonly found in many solid tumors. We believe our JTX-2011 antibody has a dual mechanism of action that serves to amplify an immune response in T effector cells, or "good" T cells, while preferentially reducing the number of T regulatory cells, or "bad" T cells, within a tumor. Our preclinical data demonstrates that JTX-2011 stimulates a significant T cell immune response against solid tumors. We submitted our Investigational New Drug Application, or IND, for JTX-2011 to the Food and Drug Administration, or FDA, in July 2016 and began our JTX-2011 multi-arm Phase I/II clinical trial in patients with solid tumors in August 2016. We believe JTX-2011 has the potential to act both as a single agent and more importantly in combination with other therapies, such as anti-PD-1 antibodies, to offer treatment alternatives to patients who otherwise lack an effective response to currently approved therapies. We are also conducting IND enabling studies for JTX-4014, an anti-PD-1 antibody for use in future combinations with JTX-2011 as well as for use in combination with other future product candidates, as we believe combination therapy has the potential to be a mainstay of cancer immunotherapy. Safety data from our multi-arm Phase I/II JTX-2011 trial is expected in the first half of 2017, and preliminary efficacy proof of concept data is expected in the second half 2017 in both the single agent and combination setting.
- **Beyond T effector cells:** We are discovering and developing immunotherapies beyond the currently approved products targeting T effector cells. To do so, we are leveraging our Translational Science Platform to systematically and comprehensively interrogate cell types within the human tumor microenvironment, or TME, to enable us to develop therapies with the potential to benefit patients with tumors across the spectrum from hot to cold. This includes focusing on adaptive and innate immune cells, such as B and T regulatory cells, and immunosuppressive macrophages, respectively. Therapies targeting these cell types and cell subsets may have the potential to complement existing approaches that focus on T effector cells and thereby benefit many patients who do not respond to the currently approved T effector cell-focused immunotherapies. In addition, we are discovering and developing multiple approaches, including targeting stromal cells, with the potential to convert cold tumors to hot tumors, thereby making the tumors more amenable to immunotherapy, perhaps in combination approaches.
- **Identifying potential predictive biomarkers to prioritize indications and match the right therapy to the right patients:** Early in the development process, we use our Translational Science Platform to identify potential predictive biomarkers designed to enable us to enrich for a patient population more likely to respond to our immunotherapy. In addition we can also use characteristics defined by our biomarker efforts to focus on niche indications and/or niche subsets within indications to inform our clinical strategy. By taking this biomarker-driven approach, which supports enriched-enrollment clinical trial design by stratifying patients and focusing on the biomarker positive patients whose tumors express our biomarker(s) of interest, we believe that we can more efficiently develop our cancer immunotherapies. The biomarker results, coordinated to clinical response, will determine the utility of proceeding to the use of a complementary diagnostic and/or companion diagnostic for a given therapy.

Our ability to prioritize targets and potential predictive biomarkers using our Translational Science Platform was a key component leading to our strategic collaboration with Celgene Corporation, or Celgene. This global strategic collaboration, which included a $225.0 million upfront payment and a $36.1 million equity investment, is primarily focused on co-developing and co-commercializing innovative biologic immunotherapy treatments for patients with cancer. Under the agreement, we granted Celgene exclusive options to develop and commercialize our lead product candidate, JTX-2011, and up to four early-stage programs consisting of targets to be selected from a pool of certain B cell, T regulatory cell and tumor-associated macrophage targets. Additionally, Celgene has an exclusive option to develop and commercialize our product candidate JTX-4014, which, upon exercise of such option, will be a shared program that may be used by both parties in and outside of the collaboration. Under the terms of the agreement, if Celgene exercises all of its options, all programs meet all milestones, including regulatory approvals in the United States and outside the United States, and Celgene extends the initial four year research term for three additional years, we are eligible to earn up to approximately $2.6 billion in clinical, regulatory, and/or commercialization milestone payments, option-exercise fees and research term extension fees. In addition to progressing collaboration programs, we will continue to use our Translational Science Platform to progress our own programs that are not part of the collaboration and for which we retain worldwide commercial rights.

Immunotherapies are increasingly recognized as a critical component of cancer therapy and are beginning to fundamentally change the paradigm for treating patients. Fewer than half of all cancer patients respond to single agent immunotherapies. Combination therapies are beginning to yield greater responses than single agent therapies, yet there is still significant unmet medical need among large patient populations across most solid tumor indications. In addition, there is a significant number of patients with tumors that lack, or have low levels of, immune cell infiltrate where additional approaches may be required to fully realize the benefit of immunotherapy agents. We believe targeting novel immune mechanisms in combination with identifying and using predictive biomarkers may best address these areas of unmet need.

Our Translational Science Platform utilizes a suite of integrated technologies to comprehensively profile the cellular and molecular characteristics within thousands of human solid tumors, providing critical information about the TME that we believe will allow us to identify and guide new immunotherapies more efficiently through development. We utilize a systematic approach to match targets to defined patient populations, as well as niche indications and/or niche subsets within indications, which we believe are more likely to benefit from these therapies. Building on our biomarker-driven strategy, we aim to establish complementary diagnostics and/or companion diagnostics for each of our product candidates to identify the right patients for treatment.

JTX-2011, our lead program, has shown preclinical anti-tumor effects both as a single agent and in combination with existing immunotherapies such as anti-PD-1 antibodies. Single agent efficacy in preclinical models is correlated with the percentage of ICOS-expressing T cells in the tumor. Using our Translational Science Platform, we have identified human cancer indications that display high percentages of ICOS-expressing T cells and ICOS-related biomarkers within the tumors. Based on this, we have prioritized certain indications including non-small cell lung cancer or NSCLC, head and neck squamous cell cancer or HNSCC, and additional niche indications for evaluation in our ongoing JTX-2011 single agent trial. Furthermore, individual patient tumors from the selected indications will be evaluated during clinical trial enrollment for ICOS and related biomarkers so that we can enrich our trials with patients who may be more likely to respond to JTX-2011. We are also using our Translational Science Platform and biomarker-driven strategy to identify additional niche indications and/or niche subsets within indications that may be particularly amenable to JTX-2011 therapy and may provide additional patient populations for evaluation in our clinical studies. In addition, because existing immunotherapies such as anti-PD-1/anti-PD-L1 antibodies may induce ICOS upregulation on T cells, we believe that in a combination setting, JTX-2011 may exert anti-tumor activity in a broader group of indications and thus provide benefit to a greater number of patients. As a result, our ongoing Phase I/II multi-arm trial will also assess the safety and efficacy of JTX-2011 in combination with the anti-PD-1 antibody, nivolumab, in patients with NSCLC, HNSCC, triple negative breast cancer, or TNBC, melanoma, stomach cancer and additional niche indications identified through our Translational Science Platform. Assuming continued successful development, our expectation is that our anti-PD-1 antibody JTX-4014, that is currently in IND-enabling studies, will be included in subsequent clinical studies.

The majority of immunotherapy discovery and development efforts have focused on T cell targeted therapies, particularly T effector cells, which have provided long-lasting benefits to some patients, but significant unmet medical need remains. As such, we have focused our early discovery efforts on interrogating multiple cell types. We believe our approach will identify novel immunotherapies that engage different elements of the immune system and stroma and can address the broader unmet medical need across solid tumor indications. Our discovery pipeline consists of multiple programs, including several that target immunosuppressive macrophages, which are highly prevalent in many solid tumor types, as well as programs aimed at converting cold tumors to hot tumors. We

believe these approaches may create options for patients who are less likely to respond to currently approved therapies, as well as enhance responses in patients who have had limited response to currently approved immunotherapies.

We have assembled a highly experienced team of experts in immunotherapy to help us leverage our Translational Science Platform to drive the development of our early discovery programs and JTX-2011. Our chief executive officer, Dr. Richard Murray, our chief scientific officer, Dr. Deborah Law, and our chief technical officer, Dr. Stephen G. Farrand, each have successful track records discovering, developing, manufacturing, and commercializing drugs across a range of therapeutic areas including immunotherapy, and have played leadership roles from the preclinical stages through the Biologics License Application, or BLA, approval of the product Keytruda. Additionally, Dr. Elizabeth Trehu, our chief medical officer, has significant oncology drug development and commercialization experience. Two of our founders, Dr. James Allison and Dr. Padmanee Sharma of the University of Texas MD Anderson Cancer Center, were initially responsible for the translational science behind ICOS. Dr. James Allison played a fundamental role in ushering in the era of checkpoint therapy in general, including contributing to the understanding of the basic science of CTLA-4 that supported the development of Yervoy, and he was recently awarded the 2015 Lasker-DeBakey Clinical Medical Research Award. Dr. Thomas Gajewski of the University of Chicago, Dr. Drew Pardoll of Johns Hopkins University, Dr. Robert Schreiber of Washington University School of Medicine, and Dr. Louis Weiner of Georgetown University are also founders of our Company.

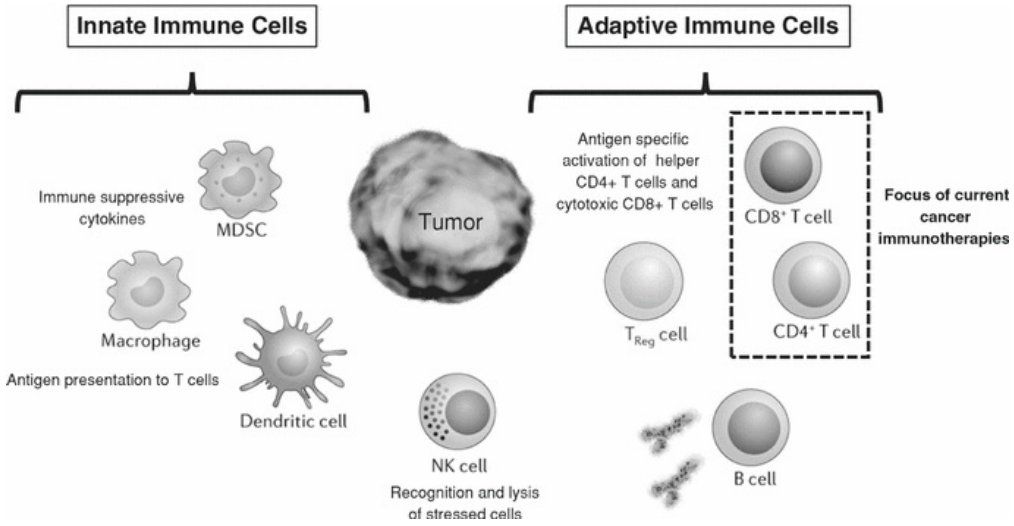
Immuno-oncology Background

Cancer is a broad group of diseases in which normal cells are transformed into a state of rapid and uncontrolled cell growth, forming tumors. Cancer typically originates from a particular tissue in the body, such as the lung or skin, and often spreads, or metastasizes, as the disease progresses. Tumors are comprised of multiple cell types, all present to varying degrees, including cancerous cells, immune cells, and stromal cell types that collectively form the TME. The composition of the TME dictates the aggressiveness of a particular cancer, its susceptibility to treatment, and ultimately the fate of the patient.

The immune cells within the TME are now the subject of significant drug development activity. The immune system contains many different cells types that fall into two general categories, innate and adaptive. The innate immune system is a first line, ubiquitous defense aimed at combating elements which the body views as foreign. After the innate immune system is activated, its cells help to trigger an adaptive immune response that is specific to a particular antigen. The adaptive immune system is flexible and can evolve to combat multiple antigens. Importantly, it has the capacity for immune memory, or the ability of the immune system to be recalled into action if the same foreign material is reintroduced into the body in the future. The innate and adaptive components of the immune system are both essential for a productive immune response.

A collection of innate and adaptive immune cell types are shown in Figure 1 below.

Figure 1: Illustration of Innate and Adaptive Immune Cell Types



Historically, cancer treatments have focused on either killing or arresting the proliferation of the tumor cells themselves. However, fundamental work pioneered by one of our founders, Dr. James Allison, led to the discovery of immune cell checkpoint therapy. Checkpoints are key immune cell mechanisms that function as either positive or negative steps to fine tune and control the immune response. In the cancer setting, tumor cells have developed strategies for hijacking these immune checkpoints, preventing an immune response to the cancer and allowing the tumor cells to proliferate without any natural interference. Checkpoint immunotherapies have been developed to overcome this by either enhancing immune cell activation (stepping on the gas of the immune system) or blocking immune cell inhibition (releasing the brakes on the immune system) resulting in an amplification of the anti-tumor immune response. The activation of the immune cells within a tumor leads to an anti-cancer attack and can result in a long-lasting effect as some of the immune cells become memory cells that remain primed to stimulate a response to future cancer cells.

There are currently three approved immunotherapies that target the PD-1 pathway. These include two single-agent immunotherapies that target the receptor PD-1 on certain T cells: pembrolizumab, marketed as Keytruda, and nivolumab, marketed as Opdivo. Keytruda has been approved in melanoma, NSCLC, and HNSCC settings, while Opdivo has been approved in melanoma, NSCLC, renal cell carcinoma, and classical Hodgkin lymphoma, HNSCC, and urothelial cancer settings. Both agents have also shown clinical promise in a number of other tumor types. The third approved drug targeting this checkpoint pathway is the PD-L1 targeting antibody atezolizumab, marketed as Tecentriq, which has been approved in urothelial carcinoma and NSCLC. An additional single-agent immunotherapy, ipilimumab, or Yervoy, that targets a different protein receptor CTLA-4 on certain T cells, has also been approved for melanoma and is undergoing additional clinical trials. Combination therapy aimed at multiple targets has now become an important element of immunotherapy development, with the goal of creating even better long-lasting responses. For example, in 2016 Opdivo plus Yervoy was approved as the first combination immunotherapy for use in all melanoma patients.

Recent clinical data from PD-1 checkpoint inhibitor studies has highlighted the importance of a biomarker-driven patient-enrichment strategy. In October 2016, Keytruda was approved second-line in PD-L1 biomarker positive patients having advanced NSCLC. Biomarker positive patients are defined by a tumor proportion score (TPS) ≥ 1% for PD-L1 expression in tumors as measured by a companion diagnostic. Additionally, Keytruda was approved in the first-line therapeutics setting for PD-L1 high NSCLC patients defined using the same companion diagnostic but having a TPS ≥ 50% for PD-L1 expression in tumors. In contrast, Opdivo, which did not use a companion diagnostic for approval in the advanced, second-line NSCLC patient population, subsequently failed to reach its primary endpoint in first-line treatment of NSCLC patients enrolled using an untested biomarker approach with a less stringent threshold ≥ 5% PD-L1 expression in tumors. We believe that the positive data in biomarker-selected patient populations validates our proposed biomarker-driven approach and highlights the importance of a parallel development path for both the biomarker and the therapeutic starting at an early stage of clinical development.

The promise of long-lasting benefit to cancer patients has led to heightened enthusiasm for these types of immunotherapy products and a further expansion of the market opportunity. The overall market for immunotherapy has expanded significantly over the past five years, with 2015 and 2016 estimates for the 2020 market size ranging from $25 to $59 billion across solid and blood-based tumors.

Currently approved immunotherapies, such as the anti-PD-1 antibodies, are directed at the T effector cell arms of the adaptive immune response and are generally beneficial for cancer patients whose tumors are infiltrated with this cell type. However, many solid tumors lack high T cell infiltration in the TME yet possess other immune cell types, which could be the basis of more effective treatments for those patients.

The pattern of immune cell infiltration varies across solid tumors. Initial immunotherapy approaches did not take into account the immune cell composition of the tumor, and therefore treatments were not matched to defined patient populations, leading to response rates in a minority of patients. We believe it is important to identify tumors with certain immune cell characteristics, defined by biomarkers, to best predict which patients are most likely to benefit from a given therapy. Our Translational Science Platform has the potential to allow us to conduct a broad, systematic characterization of the different patterns of cell types within a range of solid tumor indications. We believe our platform enables identification of targets and related biomarkers linked to specific immune cell types that will allow us to identify and prioritize indications, including potential niche indications and/or niche subsets of indications, thereby enabling us to enroll patients in our clinical trials that may be more likely to respond to our new therapies.

Challenges in Immuno-oncology

Despite the enthusiasm surrounding immunotherapies and the benefit certain cancer patients have experienced in recent years, substantial challenges remain to maximize the impact of immunotherapy in cancer. To date, identifying the most appropriate indications and most responsive patient populations for a particular immunotherapy has presented significant challenges, including the following:

- *Established single agent immunotherapies are only effective in a minority of patients.*
- *The current approach to immunotherapy target prioritization is not systematic and does not leverage a complete understanding of the TME to best identify high value targets, related to certain patient populations.*
- *The current emphasis on T effector cell-focused immunotherapy targets does not harness the entire spectrum of potential immune and non-immune cell targets within the tumor leaving fewer therapeutic options for patients whose tumors are poorly infiltrated with T cells.*
- *Predictive biomarkers, the value and use of which are relatively new, are not uniformly used to proactively select responsive patient populations and/or preferred indications, which drives longer development timelines with higher associated costs.*

Our Differentiated Approach to Solving the Challenges of Immuno-oncology

Jounce was founded on the principle that an in-depth understanding and profiling of the immune system within human tumors can significantly enhance and expedite the development of impactful immunotherapies. Our multifaceted approach to profiling tumors yields a comprehensive understanding of the TME allowing us to efficiently prioritize promising cancer targets and related biomarkers. We believe our efforts allow us to prioritize indications and match the right therapy to the right patients, enabling an enriched-enrollment clinical trial design, which may result in shorter development timelines with lower associated costs. More specifically:

- *Our Translational Science Platform allows us to comprehensively interrogate the TME.* Our Translational Science Platform utilizes a suite of integrated technologies to comprehensively characterize the TME. We analyze thousands of human solid tumors, which provides critical information that we believe will allow us to guide immunotherapies more efficiently through development. Critical components of our approach include:
    - Proprietary bioinformatics to interrogate large tumor RNA data sets. This allows us to create and distill critical information such as gene signatures and related expression patterns across multiple solid tumor types and to correlate them to the specific cell types within the TME.
    - Multi-parametric immunohistochemistry, or IHC, to evaluate the level of specific proteins in tumor cells and healthy tissues.
    - Isolation and characterization of the specific immune system components of tumors.
    - Tumor histoculture to provide early evidence and proof of concept of our therapeutic programs in human tumor samples with in vivo-like analysis of potential therapies using patient intact tumor tissue.
- *Our ability to extensively exploit and evaluate cells within the TME, including immune cells and stromal cells, allows us to prioritize targets and develop new immunotherapies targeting the spectrum of hot to cold tumors.* We systematically evaluate both adaptive and innate immune cells and stromal cells within the TME to prioritize targets that go beyond T effector cell-directed approaches. Our early discovery efforts are focused on programs targeting both adaptive immune cells including B cells and T regulatory cells, as well as innate immune cells such as immunosuppressive macrophages, which are highly prevalent in many solid tumor types. In addition, we are discovering and developing multiple approaches, including targeting stromal cells, with the potential to convert cold tumors to hot tumors, thereby making the tumors more amenable to immunotherapy, perhaps in combination approaches. We believe that targeting multiple cell types will allow us to develop therapies with the potential to benefit patients with tumors across the spectrum from hot to cold, which may enable the development of therapeutic alternatives for patients who are less likely to respond to currently approved therapies, as well as enhance responses in patients who have had limited response to currently approved immunotherapies.
- *Our Translational Science Platform allows us to identify potential predictive biomarkers to prioritize indications and match the right therapy to the right patient.* Despite the promise of newly approved agents

in immunotherapy, only a minority of patients respond. Biomarkers and complementary diagnostics and/or companion diagnostics are not uniformly used to identify responsive patient populations. Using our Translational Science Platform, we prioritize indications based on the levels of specific biomarkers that we have identified as relevant within the applicable tumor. For example, in our JTX-2011 program we identified and prioritized the cancer indications to study in our initial clinical trials based on the levels of ICOS-expressing T cells and ICOS-related biomarkers present within tumors. In addition, individual patient tumors from the selected indications will be evaluated during clinical trial enrollment for the same ICOS and related biomarkers so that we can enrich our trials with patients who may be more likely to respond to JTX-2011. Building on our biomarker-driven strategy, we aim to establish complementary diagnostics and/or companion diagnostics for each of our product candidates to identify the right patients for treatment with our products. In addition we can also use characteristics defined by our biomarker efforts to focus on niche indications and/or niche subsets within indications to inform our clinical strategy. By taking this biomarker-driven approach, we believe that we can more efficiently develop our cancer immunotherapies.

- *Potential for shorter development timelines and lower associated costs.* We believe that our Translational Science Platform will enable us to identify optimal immune cell and non-immune cell targets, as well as enrich patient populations most likely to respond to our therapies. Unlike most currently approved immunotherapy approaches that involve significant time and costs associated with achieving effective response rates, we believe that our approach will yield a more efficient overall development process.

Our Strategy

Our goal is to bring the right immunotherapies to the right patients to provide a long-lasting benefit that ultimately improves the patient's life. To achieve our goal, we are:

- **Aggressively developing our lead product candidate JTX-2011 both as a single agent and in combination with approved therapies including nivolumab in our ongoing study and, we expect, our anti-PD-1 antibody JTX-4014 in subsequent studies**. We submitted our IND for JTX-2011 to the FDA in July 2016 and initiated our multi-arm Phase I/II clinical trial in solid tumors, including select cancer types, such as NSCLC and HNSCC in August 2016. We used our Translational Science Platform to identify the initial target cancer indications for this clinical trial, and continue to use our platform to inform on our clinical strategy through the identification of additional potential niche indications and/or niche subsets of indications that may be more amenable to treatment with JTX-2011. During clinical trial enrollment, we will assess, on a patient-by-patient basis, the levels of ICOS and related biomarkers to enrich for patients we believe may be more likely to respond. If our biomarker-driven strategies are successful, we aim to establish complementary diagnostics and/or companion diagnostics. We plan to pursue development of JTX-2011 both as a single agent and more importantly in combinations with other therapies to maximize its utility and value. Our initial trial focuses on combination with the anti-PD-1 antibody, nivolumab, and assuming continued successful development, we expect to include our anti-PD-1 antibody, JTX-4014, in subsequent clinical studies.
- **Efficiently building a broad pipeline of immunotherapies targeting defined patient populations through the use of our Translational Science Platform**. We believe our platform is an efficient and productive discovery and development engine that can identify new targets across multiple cell types with the aim of creating a portfolio of novel, targeted immunotherapies. By identifying related biomarkers to prioritize indications, including potential niche indications and/or niche subsets of indications, to enable us to build a clinical population of patients who may be more likely to respond to our therapies, we believe we have the potential to shorten development timelines with lower associated costs.
- **Addressing the unmet medical needs of cancer patients with tumors unresponsive to T effector cell-directed therapies by emphasizing our discovery efforts on other cell types within the TME**. We are looking beyond the initial immunotherapy approaches that focus on targeting T effector cells and are systematically and comprehensively interrogating cell types within the TME, including additional adaptive immune cells such as B cells and T regulatory cells, as well as innate immune cells, such as macrophages, and non-immune cells such as stromal cells. Therapies targeting macrophages may provide benefit to many patients who do not respond to currently approved T effector cell-directed immunotherapies by converting an immune inhibitory TME to an immune-enhancing TME. In addition, by targeting different immune cell types and mechanisms, macrophage targeted therapies may be able to combine with currently approved T effector cell approaches and provide potential benefit to a greater number of patients. Similarly, stromal cells often support tumor growth and influence immune cell function and may be an important

avenue for the development of more effective cancer immunotherapies particularly focused on colder tumors.

- **Maximizing the value of our early pipeline through building and/or in-licensing new technologies and methodologies to turn cold tumors to hot tumors to make them more amenable to immunotherapy**. We are also looking to address the unmet needs of the significant number of patients with tumors that are immunologically cold, having little to no immune cell infiltrate, with the aim of targeting the TME to enable immune cell infiltration. This may provide the potential to change these cold, non-responsive tumors to hot tumors more amenable to immunotherapy. Such an approach may benefit from leveraging additional technologies including, but not limited to, methods of delivery of proteins to cold tumors.
- **Building the leading fully integrated discovery-to-commercial immuno-oncology company by delivering innovative immunotherapies to cancer patients**. We believe that immunotherapy is changing the paradigm of cancer treatment. We have assembled a world-class team and have built a robust translational platform that we believe allows us to create a sustainable, novel pipeline in immunotherapy. If JTX-2011, JTX-4014 or any future product candidate we may develop is approved, we will consider marketing them in select markets to retain the greatest value for our shareholders.

Jounce's Translational Science Platform

Our Translational Science Platform utilizes a suite of integrated technologies to comprehensively profile the cellular and molecular characteristics within thousands of human solid tumors, providing critical information on the TME that we believe will allow us to identify and guide new immunotherapies more efficiently through development. We have built a broad network of relationships with academic institutions and clinicians to access human tumor samples with well documented clinical histories. Profiling of the TME is driven by robust analytics including proprietary bioinformatics, IHC, isolation and characterization of components of tumors, and tumor histoculture. Our current development efforts are focused on both adaptive and innate components of the immune system, as well as on potential immune and non-immune cell components that may enable the conversion of cold tumors to hot tumors. Through our Translational Science Platform, samples are profiled for the composition of immune cells within the tumors, which is then correlated with biological and clinical information, such as patient outcomes. We select targets that may be relevant for drug discovery, and employ our suite of integrated assays and *in vivo* models to validate these programs. In parallel with our drug discovery efforts, such as generation of lead monoclonal antibodies, we use our Translational Science Platform to identify potential predictive biomarkers that may allow us to build a clinical population of patients who may be more likely to respond to our therapies. In addition characteristics that are defined by our biomarker efforts are used to identify potential niche indications and/or niche subsets of indications that may be more amenable to our therapies. This approach is evident in our current pipeline of immunotherapy product candidates and highlight the following key differentiating features of our Translational Science Platform:

- *Target Identification.* We are discovering and developing immunotherapies beyond the currently approved products targeting T effector cells. To do so, we are leveraging our Translational Science Platform to systematically and comprehensively interrogate cell types within the TME to enable us to develop therapies with the potential to benefit patients with tumors across the spectrum from hot to cold. This includes focusing on adaptive immune cells, such as B cells and T regulatory cells, as well as innate immune cells including immunosuppressive macrophages that may create a pro-tumor environment. Therapies targeting these cell types and cell subsets may have the potential to complement existing approaches that focus on T effector cells and thereby benefit many patients who do not respond to the currently approved T effector cell-focused immunotherapies. In addition, we are discovering and developing multiple potential approaches, including targeting stromal cells, with the potential to convert cold tumors to hot tumors, thereby making the tumors more amenable to immunotherapy, perhaps in combination approaches.
- *Indication Selection and Patient Enrichment.* Using our Translational Science Platform, we prioritize indications based on the levels of specific biomarkers that we have identified as relevant within the applicable tumor. For example, in our JTX-2011 program, we used both IHC and RNA profiling to evaluate the levels of ICOS and related biomarkers in over a thousand tumor samples. Indications that demonstrated higher percentages of ICOS-expressing immune cells and related biomarkers were prioritized. Furthermore, individual patient tumors will be evaluated during clinical trial enrollment for ICOS and related biomarkers to build a clinical population of patients who may be more likely to respond to JTX-2011. We are also using characteristics defined from our biomarker efforts to identify niche indications and/or niche subsets of

indications that may be more amenable to treatment with JTX-2011 and these data are being used to inform our clinical development strategy.

Although immuno-oncology is leading the frontier in new cancer therapies, most of the focus to date has been on T effector cells. We believe there are significant opportunities to develop immunotherapies that target other cell types within the TME to address the spectrum of hot to cold tumors, which could result in groundbreaking advances in cancer treatment. As new technologies arise, we plan to continually enhance our Translational Science Platform by looking for additional opportunities to expand our capabilities and deepen our understanding of the TME. Our ultimate goal is to use our Translational Science Platform to comprehensively interrogate the TME to enable us to bring the right therapies to the right patients.

Strategic Alliance with Celgene

Overview

In July 2016, we entered into a Master Research and Collaboration Agreement with Celgene. The primary goal of the collaboration is to co-develop and co-commercialize innovative biologic immunotherapies that either activate or suppress the immune system by binding to targets identified by leveraging our Translational Science Platform. Under the agreement, we granted Celgene exclusive options to develop and commercialize our lead product candidate, JTX-2011, and up to four early-stage programs consisting of targets to be selected from a pool of certain B cell, T regulatory cell and tumor-associated macrophage targets. Additionally, Celgene has an exclusive option to develop and commercialize our product candidate JTX-4014, which, upon exercise of such option, will be a shared program that may be used by both parties in and outside of the collaboration. Prior to Celgene exercising an option for a program, we are responsible for all research and development activities for that program under the agreement during the collaboration, and subject to all costs and potential liabilities.

Advancement of biologics: For programs that have biologics that meet mutually agreed criteria for suitability for further development, Celgene may elect that program's target (solely with respect to immune activation or immune suppression, as applicable) to be added to the pool of targets for which we may conduct further research subject to the terms of the collaboration. If we continue to conduct research and development for such programs, then such activity will be part of the collaboration. If Celgene does not elect a program that achieves such criteria, then we will retain the rights to such program's targets and biologics and Celgene will not have an option to such program.

Exercise of options and further development of programs: Celgene may extend the initial four-year research term of the collaboration for up to three additional one-year periods upon payment of an extension fee for each additional year. Celgene may exercise its option for a program at any time until the expiration of an option term for that program. For each program, the option term ends 45 to 60 days following Celgene's receipt of a data package that includes certain information relating to the program's research and development activities. The data package for a program may be delivered to Celgene after the applicable development milestone for such program has been achieved. Depending on the program, the applicable development milestone is (1) IND acceptance, (2) availability of certain Phase Ia data, or (3) availability of certain Phase I/II data. If Celgene fails to exercise its option during the option term for a program, we will retain the rights to such program. If Celgene exercises its option for a program other than JTX-4014, then we will enter into a co-development and co-commercialization agreement with Celgene for such program in substantially the form attached to the agreement as an exhibit. Under the co-development and co-commercialization agreement for JTX-2011 and one additional program for which Celgene opts in that is not JTX-4014, we will be responsible for leading development and commercialization activities in the United States and Celgene will be responsible for development and commercialization activities outside the United States. For all other additional programs for which Celgene opts in, other than JTX-4014, Celgene will lead development and commercialization activities worldwide. If Celgene exercises its option for JTX-4014, we will enter into a license agreement, in substantially the form attached to the agreement as an exhibit, pursuant to which we will both be able to equally access JTX-4014 for combinations within our portfolios and with other molecules that are subject to the agreement, subject to joint governance. Once Celgene opts in with respect to a given program, Celgene and we must each use commercially reasonable efforts to develop and commercialize the corresponding product in the United States.

Governance: The collaboration is governed by a joint steering committee, or JSC, and a joint patent committee. The JSC may establish additional subcommittees to oversee particular projects or activities. Subject to limitations specified in the agreement, if the applicable governance committee is unable to make a decision by consensus and the parties are unable to resolve the issue through escalation to specified senior executive officers of the parties, then we generally have final decision-making authority over research and development matters for programs prior

to Celgene's exercise of its option to such program. If Celgene exercises its option for a program, final decision-making authority for that program is specified in the applicable co-development and co-commercialization agreement or license agreement.

Exclusivity: During the collaboration's research term (i.e., for four years plus up to three one-year extensions that Celgene may elect), we may not alone, or with a third party, research, develop, manufacture or commercialize a biologic that binds to a defined pool of B cell, T regulatory cell or tumor-associated macrophage targets that meet certain criteria, termed an exclusive target, and inhibit, activate or otherwise modulate the activity of such exclusive target. In addition, if Celgene exercises its option for a program within the collaboration other than JTX-4014, then until termination or expiration of the applicable co-development and co-commercialization agreement for such program, we may not directly or indirectly research, develop, manufacture or commercialize, outside of the collaboration, any biologic with specified activity against that program's collaboration target.

Financial terms: Under the terms of the agreements, we received a $225.0 million upfront cash payment and $36.1 million from the sale of 10,448,100 shares of our Series B-1 convertible preferred stock. If Celgene exercises any of its options, then Celgene will pay us an option-exercise fee, the parties will enter into a co-development and co-commercialization agreement or a license agreement that governs the development and commercialization of the applicable program, and we will then split future development and commercialization costs with Celgene in accordance with such agreement. Additionally, under the terms of the agreement, if Celgene exercises all of its options, all programs meet all milestones, including regulatory approvals in the United States and outside the United States, and Celgene extends the initial four year research term for three additional years, we are eligible to earn up to approximately $2.6 billion in clinical, regulatory, and/or commercialization milestone payments, option-exercise fees and research term extension fees.

The development milestones are payable on initiation of certain clinical trials and range from $32.5 million to $105.0 million, per program, with an aggregate total of $290.0 million. The regulatory approval milestones are payable upon regulatory approval in the United States and outside the United States and range from $7.5 million to $50.0 million per milestone, with an aggregate total of $700.0 million. The commercial milestones are payable upon achievement of specified aggregate product sales outside the United States for each program and range from $40.0 million to $200.0 million per milestone, with an aggregate total of $1.270 billion. We are also eligible to receive royalties on product sales outside the United States ranging from high single digit to mid-teen royalties.

Profit sharing, cost sharing and commercialization rights for products: If Celgene exercises its option for a program, then we will share with Celgene the U.S. profits or losses on such collaboration program as follows:

- We will retain 60 percent of the U.S. operating profits or losses arising from commercialization of JTX-2011, with 40 percent allocated to Celgene.
- We will retain 25 percent of the U.S. operating profits or losses arising from commercialization of the first program, other than JTX-2011 or JTX-4014, for which an IND application is filed under the collaboration, with 75 percent allocated to Celgene. Celgene has a one-time right to substitute and swap the economics and governance of this program with that of another program for which it exercises an option (other than JTX-2011 and JTX-4014).
- We and Celgene will equally share U.S. operating profits or losses arising from commercialization of up to three additional programs (other than JTX-2011 or JTX-4014).
- We and Celgene will share all development costs, other than for JTX-4014, in accordance with the applicable co-development and co-commercialization agreement.

If Celgene exercises its option for a program other than JTX-4014, we will enter into a co-development and co-commercialization agreement, pursuant to which Celgene will have the exclusive right to develop and commercialize the products arising out of such collaboration program outside of the United States, and we will be eligible to receive tiered royalties ranging from a high single digit to mid-teen percentage rate on net product sales outside of the United States. Under each co-development and co-commercialization agreement, we will also have the right to opt out of profit sharing and instead receive milestones and royalties.

Furthermore, if Celgene exercises its option for JTX-4014, we will enter into a license agreement, pursuant to which Celgene and we will each have equal rights to develop and commercialize JTX-4014 in combination with other proprietary molecules in their or our respective pipelines or in combination with products arising out of collaboration programs. Subject to terms specified in the license agreement for JTX-4014, the party owning the proprietary molecule that is combined with JTX-4014, if such molecule does not arise from a collaboration program with

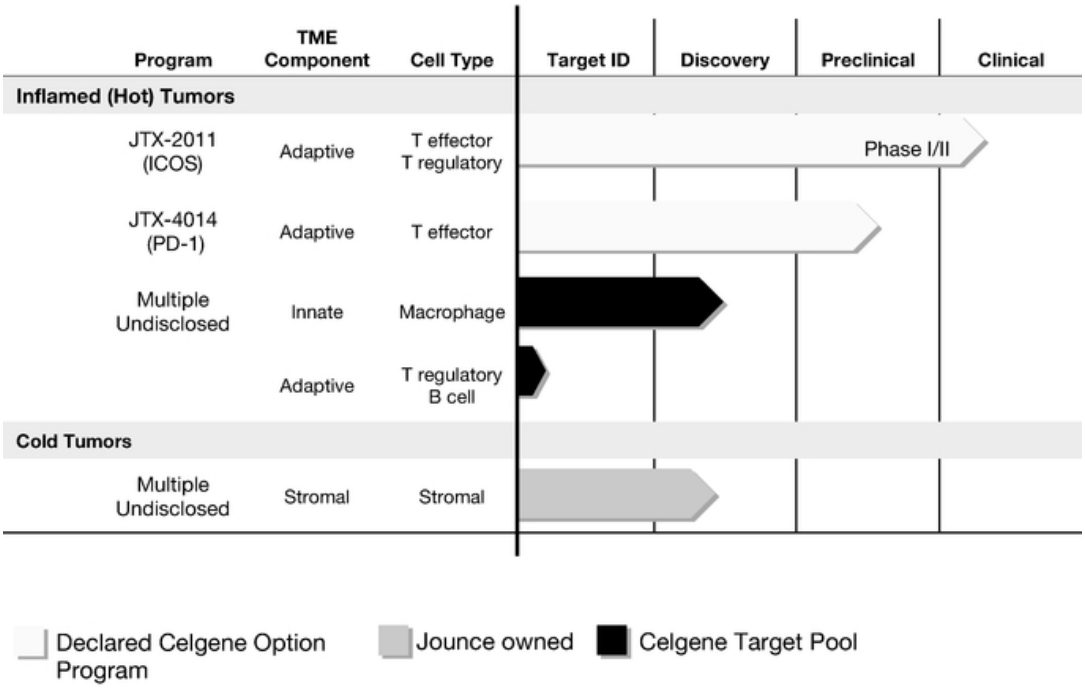
Celgene, will be solely responsible for all development and commercialization costs related to such combination. If JTX-4014 is combined with a product arising from a collaboration program, then the parties will share costs and, if co-packaged or co-formulated, profits or losses in accordance with the co-development and co-commercialization agreement for such other product.

Intellectual Property: We and Celgene will jointly own any intellectual property that is generated or invented by both parties pursuant to the activities conducted under the collaboration agreement. If Celgene exercises its option for a program, each party will also grant the other party exclusive or co-exclusive licenses, with rights to grant sublicenses, under certain of each party's intellectual property rights, determined by the nature of the program and the licensed territory.

Termination: At any point during the collaboration agreement, including during the research, development and clinical trial process, or during the term of the applicable co-development and co-commercialization or license agreement, respectively, Celgene can terminate the applicable agreement with us in its entirety, or with respect to any program under the collaboration agreement, upon 120 days' notice and can terminate the entire agreement with us in connection with a material breach of the agreement by us that remains uncured for 90 days.

Our Product Pipeline

We are developing a pipeline of immunotherapies that we believe will provide a meaningful and long-lasting benefit to cancer patients. We plan to develop each of these as a single agent and in combination with other therapies, as applicable. The following table depicts our current pipeline:



Lead Program JTX-2011: an Anti-ICOS Monoclonal Antibody Immunotherapy

Overview

Our lead product candidate, JTX-2011 is in clinical development. The IND was submitted to the FDA in July 2016, and the multi-arm Phase I/II clinical trial was initiated in August 2016.

JTX-2011 is a monoclonal antibody that binds to and activates ICOS, a protein on the surface of certain T cells. We believe our JTX-2011 antibody has a dual mechanism of action that serves to amplify an immune response in T effector cells, or "good" T cells, while preferentially reducing the number of T regulatory cells, or "bad" T cells, within

a tumor. JTX-2011 was designed with a human IgG1 Fc portion which is able to recruit mononuclear cells such as natural killer (NK) cells that can mediate antibody-dependent cellular cytotoxicity (ADCC). We believe ADCC is one of the mechanisms that leads to the preferential reduction of the T regulatory cells within the tumor, which are the cells that express the highest levels of ICOS. JTX-2011 has shown preclinical anti-tumor effects both as a single agent and in combination with existing immunotherapies such as anti-PD-1 antibodies. Informed by our preclinical studies, we are developing JTX-2011 to treat solid tumors as a single agent and in combination with other therapies. Based on our biomarker-driven efforts our initial monotherapy efforts will focus on certain indications that appear to have greater numbers of ICOS-expressing T cells within the tumor; therefore patients with NSCLC and HNSCC, as well as additional indications identified through our Translational Science Platform, are expected to be enrolled in the single agent therapy expansion arms of the trial.

Because existing immunotherapies such as anti-PD-1/anti-PD-L1 antibodies may induce ICOS upregulation on T cells, we believe that in a combination setting, JTX-2011 may exert anti-tumor activity in a broader group of indications and thus provide benefit to a greater number of patients; therefore patients with NSCLC, HNSCC, TNBC, melanoma, and stomach cancer, as well as additional indications identified through our Translational Science Platform, are expected to be enrolled in the expansion arms of the combination therapy with the anti-PD-1 antibody, nivolumab.

Clinical Study Design

The first-in-human JTX-2011 Phase I/II study, which we refer to as ICONIC, is an open label, dose escalation and expansion clinical study of JTX-2011 alone or in combination with a fixed dose of nivolumab in subjects with advanced solid tumors. It is designed to assess safety and tolerability and determine the maximum tolerated dose, or MTD, and recommended Phase II dose as well as to evaluate preliminary efficacy. The four-part adaptive design is posted on ClinicalTrials.gov (NCT02904226) and includes Parts A, B, C and D and is expected to enroll greater than 200 patients if all cohorts are advanced. Parts A and B comprise the Phase I portion of the study and are designed to provide safety, pharmacokinetic, or PK, and pharmacodynamics, or PD, data in both the monotherapy (Part A) and combination therapy (Part B) settings with data expected to be submitted for presentation at medical meetings in the first half of 2017. If the Phase I study achieves its objectives of safety, and dose selection based on PK and PD, JTX-2011 will then advance to Phase II, where expansion cohorts, monotherapy (Part C) and combination therapy (Part D), are anticipated to provide preliminary proof of concept efficacy data which is expected to be submitted for presentation at medical meetings in the second half of 2017.

Monotherapy setting (Parts A and C):

Part A is comprised of escalating doses of JTX-2011 administered intravenously, or IV, once every twenty-one days in consecutive cohorts. Additional safety, PK and PD, Part A patient, or AP, expansion cohorts are expected to be enrolled at each of two or more dose levels. Archival tumor tissue will be collected on all dose escalation subjects for retrospective assessment of ICOS and PD-L1 expression and fresh tumor biopsies will be collected on all subjects in the AP cohorts.

Part C will include at least three dose expansion cohorts in the indications listed below at a dose level determined from safety and PK/PD data in Part A:

- C1: HNSCC that has progressed on or after a prior PD-1 checkpoint inhibitor
- C2: NSCLC that has progressed on or after a prior PD-1 checkpoint inhibitor
- C3: any solid tumor type other than NSCLC and HNSCC
- new cohorts based on emerging science

We intend to stratify subjects in Part C expansion cohorts based on ICOS expression in archival tumor, with ICOS levels confirmed on a fresh pre-treatment biopsy. At least ten subjects with high (2+ or 3+) ICOS expression will be enrolled in each twenty subject cohort to explore the potential correlation between pre-treatment ICOS expression and efficacy. Additional potential predictive biomarkers, including an ICOS gene signature, will also be evaluated.

Combination setting (Parts B and D):

Part B is comprised of escalating doses of JTX-2011 in combination with the anti-PD-1 antibody nivolumab with both agents administered IV once every twenty-one days, in consecutive cohorts. Additional safety/PK/PD Part B patient, or BP, cohorts are expected to be enrolled at each of two or more dose levels. Archival tumor tissue will be

collected on all dose escalation subjects for retrospective assessment of ICOS and PD-L1 expression and fresh tumor biopsies will be collected on all subjects in the BP cohorts.

Part D will include at least five dose expansion cohorts in the indications listed below of JTX-2011 in combination with nivolumab at a JTX-2011 dose level determined from safety and PK/PD data in Part B:

- D1: HNSCC that has progressed on or after a prior PD-1 checkpoint inhibitor
- D2: NSCLC that has progressed on or after a prior PD-1 checkpoint inhibitor
- D3: TNBC
- D4: melanoma that has progressed on or after a prior PD-1 checkpoint inhibitor
- D5: gastric cancer
- new cohorts based on emerging science

We intend to stratify subjects in Part D expansion cohorts based on ICOS expression in archival tumor, with ICOS levels confirmed on a fresh pre-treatment biopsy. At least ten subjects with high (2+ or 3+) ICOS expression will be enrolled in each fifteen subject cohort to explore the potential correlation between pre-treatment ICOS expression and efficacy. Additional potential predictive biomarkers, including an ICOS gene signature, will also be evaluated.

Additional cohorts may be added to Parts C and D based on the outcome of ongoing investigations. A signal in any cohort will lead to further expansion for more robust assessment of efficacy and for planning for pivotal trials.

Although our initial study focuses on the combination of JTX-2011 with an anti-PD-1 antibody, the ability of agents, including anti-PD-1/anti-PD-L1 and anti-CTLA-4 antibodies, and cancer vaccines such as GVAX, PROSTVAC, and Mammaglobin-A, to induce ICOS upregulation on T cells highlights the potential combinability of JTX-2011 with these immune therapies. We envision this inducible nature of ICOS to be a cornerstone of our strategy in combination trials.

Timing of clinical results

Safety data from both the single agent (Part A) and the combination therapy (Part B) is expected in the first half of 2017. Preliminary efficacy proof of concept data in both the single agent (Part C) and the combination therapy (Part D) is expected in the second half of 2017.

Scientific Background and Supporting Preclinical Data

ICOS, the **I**nducible T cell **CO-S**timulator, is the target of JTX-2011. ICOS is a member of the CD28 family of cell surface proteins, a family that includes PD-1, the target of Keytruda and Opdivo, and CTLA-4, the target of Yervoy. ICOS is upregulated on T effector cells when they become activated, such as following recognition of a tumor antigen, and the resulting signaling through ICOS works to amplify an immune response. ICOS is therefore viewed as an activating receptor on T cells and, as such, agents that can stimulate ICOS would be anticipated to show anti-tumor activity.

The potential importance of ICOS in the tumor setting is supported by key clinical observations. In human studies aimed at understanding changes in the immune system following exposure to an immunotherapy drug, ICOS was the protein showing the most significant change. In melanoma patients, the observed upregulation of ICOS and its prolonged expression on the surface of CD4+ T cells was associated with response to the dosed drug. These data led to the concept that ICOS stimulatory activity on T cells was beneficial in treating solid tumors. We believe this type of clinically derived information serves as an important factor in distinguishing and prioritizing targets suitable for immunotherapy development.

We believe our JTX-2011 antibody has a dual mechanism of action that serves to amplify an immune response in T effector cells, or "good" T cells, while preferentially reducing the number of T regulatory cells, or "bad" T cells, within a tumor. Our preclinical data demonstrates that JTX-2011 acts as an agonist to stimulate primed ICOS-expressing CD4+ T effector cells to provide an amplification of the desired anti-tumor immune response. In addition, our preclinical data also suggest that JTX-2011 can reduce the number of T regulatory cells to further enhance an anti-tumor immune response by removing cells that naturally act to dampen and control immune responses. This preferential reduction of T regulatory cells has been observed in both *in vitro* assays using human T cells as well as in mouse tumor models. In the *in vitro* assays, JTX-2011 depletes human T regulatory cells but not T effector cells. Similarly, in the mouse models, there is a reduction in the number of T regulatory cells, specifically within the tumor, but no reduction in the number of T effector cells or other cells are observed. Additional data from preclinical studies

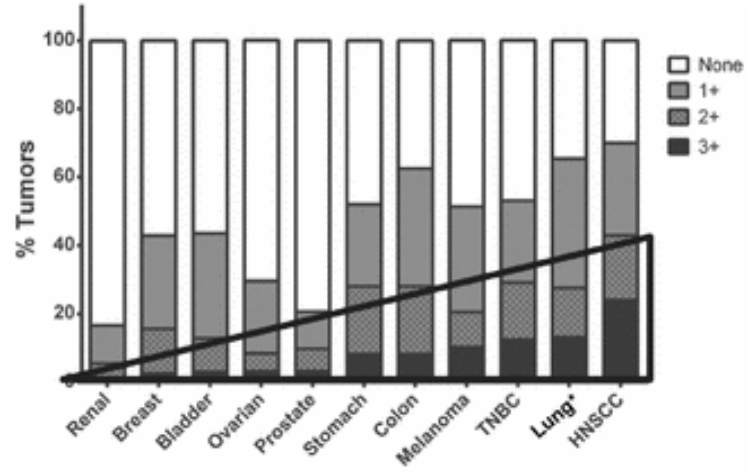
using mouse tumor models support the use of JTX-2011 both as a single agent and in combination with other therapies.

Biomarker-driven indication prioritization and patient enrichment strategy for JTX-2011

Preclinical evidence supports the view that tumors with a greater percentage of ICOS-expressing T cells are the best tumor candidates for JTX-2011. Based on this information, we believe that it is important to use our biomarkers to enroll patients in our clinical trials who are potentially more likely to respond to JTX-2011. This may allow for a more focused program with the potential to more rapidly and more efficiently develop JTX-2011. Implementation of our Translational Science Platform early in the ICOS program enabled the identification and development of ICOS-related biomarker assays, including an ICOS gene signature assay that is designed to determine RNA levels of related biomarkers, an IHC assay that is designed to detect ICOS protein, and a potential pharmacodynamic biomarker assay.

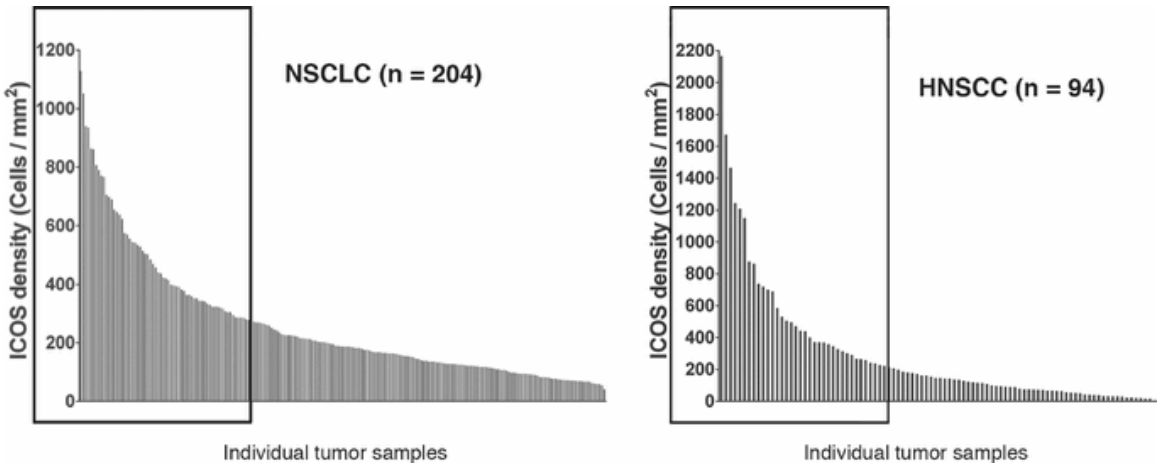
For example, in our IHC assay, over a thousand tumor samples were evaluated (approximately one hundred tumors were analyzed per indication with the exception of melanoma, for which approximately fifty tumors were analyzed). Using the IHC assay, the level of ICOS protein expression can be classified by a 0, 1+, 2+, 3+ scoring system that indicates increasing percentages of ICOS-expressing cells within the tumor sample. A spectrum of ICOS expression could be seen across individual samples within a given indication. This has allowed us to prioritize certain indications with higher percentages of ICOS-expressing immune cells, including NSCLC and HNSCC, as illustrated in Figures 2A and 2B below. These two indications were also prioritized based on RNA profiling of several thousand additional tumor samples. Our biomarker assay used for patient enrichment will be performed at central laboratories certified by the Centers for Medicare and Medicaid Services under the Clinical Laboratory Improvement Amendments to allow us to efficiently focus our clinical trials on patients who may be more likely to respond to JTX-2011, which would correspond to patients with tumors with higher ICOS levels, as exemplified by the boxed samples in Figure 2B. Building on our biomarker-driven strategy, we aim to establish complementary diagnostics and/or companion diagnostics for each of our product candidates to identify the right patients for treatment with our products. Our ability to prioritize indications by determining ICOS protein expression levels is shown in Figures 2A and 2B below.

Figure 2A: Distribution of ICOS Expression across Multiple Human Tumor Indications



* Lung includes certain lung-related indications in addition to NSCLC.

Figure 2B: Distribution of ICOS Expression in Selected Indications in Human Tumor Samples



First-in-human dose selection for JTX-2011

JTX-2011 is fully reactive to human, cynomolgus monkey, rat and mouse ICOS. Notably, the potency of JTX-2011 in pharmacologically relevant cellular assays is comparable across all four species, and the relative expression of ICOS on immune cell subsets is comparable across species. This degree of comparability provides a high level of confidence that modeling across species can be used to accurately predict human dose projections. A sophisticated PK model was developed to enable human dose projections using data from cynomolgus monkey and rat PK studies. Based on the preponderance of data, we believe that the starting dose used in our Phase I/II study is close to the minimally anticipated biological effect level based on our human T cell *in vitro* assays.

The use of our Translational Science Platform and biomarker-driven strategy to identify and prioritize indications and enrich for patients more likely to respond to treatment with JTX-2011, coupled with our preclinical modeling to support a biologically active initial dose in humans enables an adaptive first-in-human clinical trial that progresses through Phase I dose escalation to Phase II-like efficacy assessment in the intended registration patient population. Our approach has the potential to eliminate a significant portion of the traditional path to pivotal registration trials, and may therefore lead to shortened development timelines and lower associated costs. We are also using our Translational Science Platform and biomarker-driven strategy to identify and prioritize additional niche indications and/or niche subsets within indications that may be particularly amenable to JTX-2011 therapy and may provide additional patient populations for evaluation in our clinical studies.

Preclinical safety studies

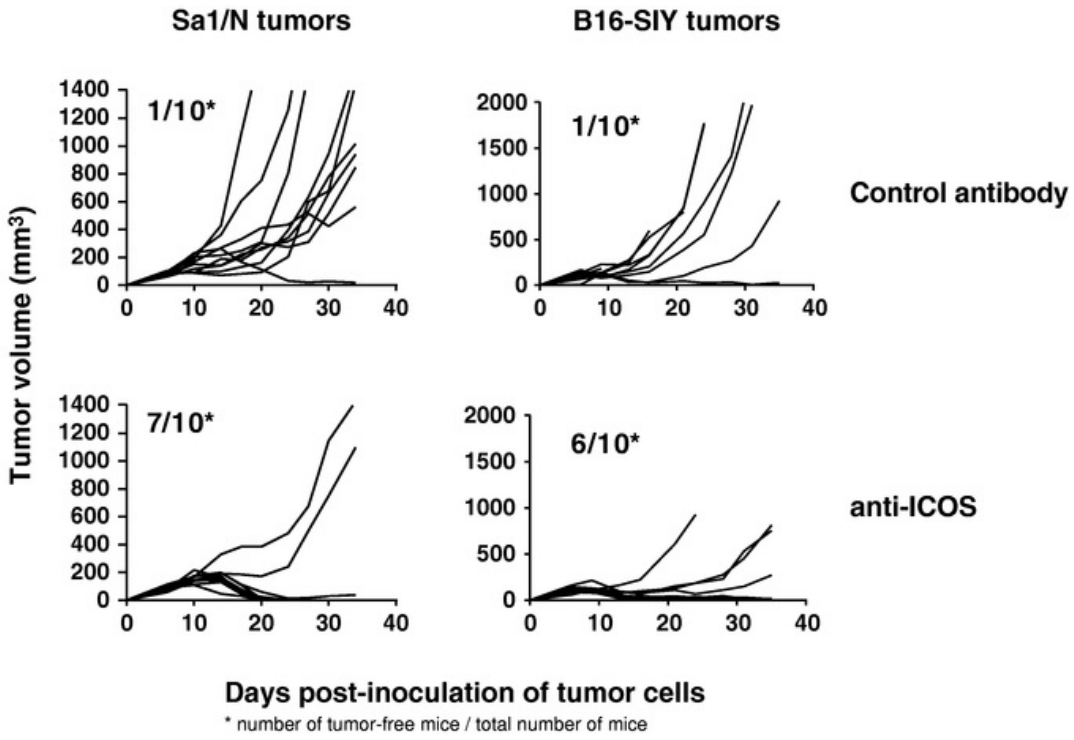
JTX-2011 recognizes and activates ICOS across multiple species, including rats and monkeys, which therefore are considered appropriate species to test the safety of JTX-2011. The potential toxicity and toxicokinetics of JTX-2011 were evaluated in non-GLP and GLP toxicology studies conducted in rats and cynomolgus monkeys. Based on the results from the toxicology studies, the nonclinical safety assessment program supported the administration of JTX-2011 as an IV infusion in our clinical trial.

Evaluation of JTX-2011 in Preclinical Tumor Models

ICOS-targeted monotherapy activity

In addition to binding to human ICOS *in vitro*, JTX-2011 also demonstrated binding to and co-stimulation of mouse, rat, and monkey ICOS allowing us to assess our antibody broadly in preclinical settings, including mouse tumor models. The mouse studies used a version of JTX-2011, or mouse JTX-2011, that has exactly the same binding regions as JTX-2011 but with a mouse constant region rather than a human constant region. This antibody was used in order to minimize any immunogenicity caused by administering an antibody with a human constant region to fully immune competent mice. Mouse JTX-2011 showed significant anti-tumor activity as a single agent in multiple mouse tumor models as illustrated in Figure 3 below. Seven of the ten mice implanted with Sa1/N tumors, and six of the ten mice implanted with B16-SIY tumors, were cured by treatment with mouse JTX-2011. The single agent activity of mouse JTX-2011 in preclinical tumor models correlates with the percentage of ICOS-expressing T cells within the tumor, thus providing supporting data for our biomarker-driven patient enrichment strategy.

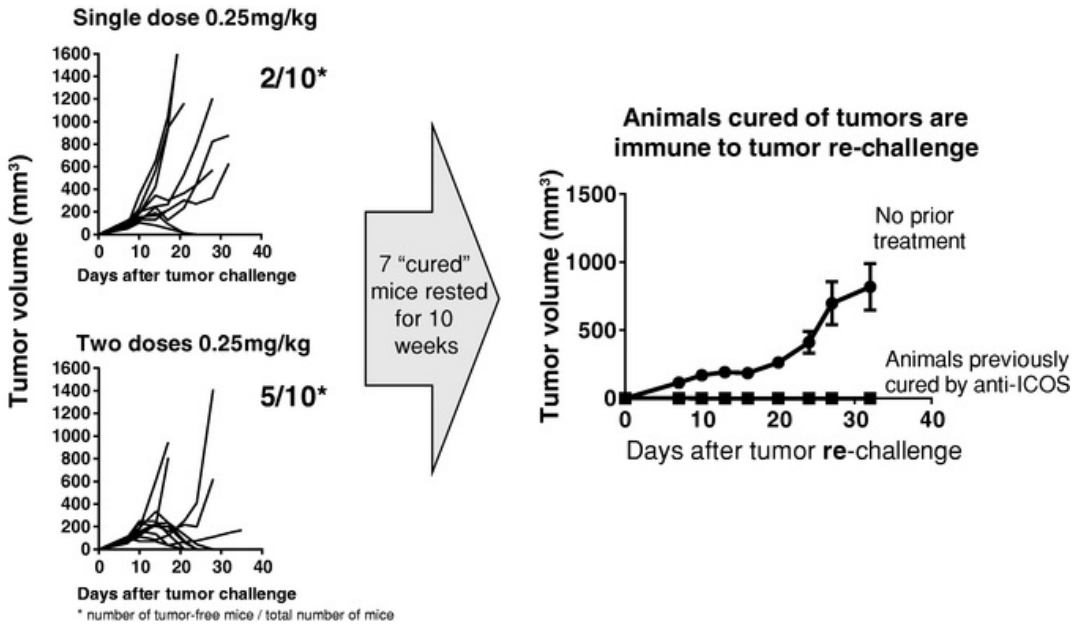
Figure 3: Mouse JTX-2011 Anti-tumor Activity as a Single Agent in Tumor Models



Long-term immunity effect

In addition, mouse JTX-2011 showed a long-lasting anti-tumor activity in a tumor re-challenge model. In this model, mice were implanted with Sa1/N tumors and when the tumors had reached a tumor size of 150mm^3, mouse JTX-2011 was administered at a low (0.25mg/kg) single or double dose. The seven mice that showed complete tumor regression, and thus were cured for purposes of the study, were rested for 10 weeks and then re-challenged with the same tumor without additional mouse JTX-2011 treatment. In contrast to control animals, no tumor growth was observed in the mice that had previously shown complete tumor regression with JTX-2011 (as shown in Figure 4 below). This data demonstrates that mice previously cured of tumors through treatment with mouse JTX-2011 rejected subsequent assault by the same tumor cells.

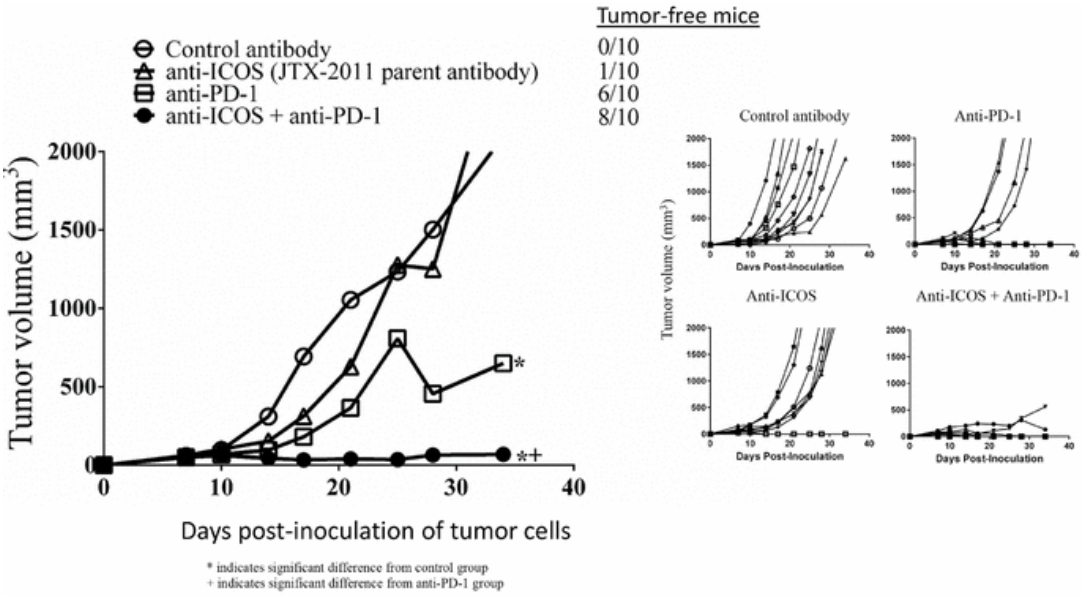
Figure 4: Anti-ICOS Tumor Reduction and Long-term Immunity in Mice



Enhanced activity in combination

For combination approaches, data from preclinical mouse models support the proposed initial clinical combination of JTX-2011 with an anti-PD-1/anti-PD-L1 antibody. As demonstrated in Figure 5 below, an anti-ICOS antibody, the parental antibody of JTX-2011, was combined with anti-PD-1 antibody. In this model, mice bearing CT26 tumors were treated with either an anti-ICOS or an anti-PD-1 antibody as a single agent or in combination with antibodies being dosed on days 3, 6, 9, and 12 after tumor inoculation. The greatest anti-tumor activity was observed when these antibodies were used in combination, and this activity was significantly enhanced compared to either antibody alone. The average tumor volume of the 10 animals in each group, as well as the tumor growth curves for each animal, demonstrates that eighty percent of the animals treated with the combination of anti-PD-1 and anti-ICOS antibodies showed complete tumor regression.

Figure 5: Greater Anti-tumor Activity with the Combination of Anti-ICOS Plus Anti-PD-1 Antibody



JTX-4014: An Anti-PD-1 Antibody for Combination Therapy

Combination therapy aimed at multiple targets has now become an important element of immunotherapy development efforts with the goal of creating even better, long-lasting responses. PD-1 checkpoint inhibitors are anticipated to play a key role in combination therapies. For this reason we are developing our own anti-PD-1 antibody, JTX-4014.

JTX-4014 is a fully human, hinge-stabilized IgG4 monoclonal antibody that is specifically designed to bind to PD-1, but not to closely-related family members, and block the interaction of PD-1 with its ligands, PD-L1 and PD-L2. Through blockade of this pathway, JTX-4014 blocks an inhibitory signal on PD-1-expressing T effector cells thereby "releasing the brakes" on the immune system, providing potential anti-tumor benefit. JTX-4014 is currently in IND-enabling studies and, assuming continued successful development, JTX-4014 will be evaluated initially in a safety study as a monotherapy prior to moving into the combination setting as we intend to use it in combination with our JTX-2011 development program as well as for use in combination with potential future product candidates.

Beyond T Effector Cell Discovery Programs

We believe that the ability to target different cell types within the TME beyond the T effector cells that are the focus of currently approved immunotherapies, including T regulatory cells, B cells, as well as innate immune cells and non-immune cells including stromal cells, may allow us to 1) pursue tumor types not currently served by therapies which target the T effector arm of the adaptive immune system, as well as 2) potentially convert the TME from an immunosuppressive environment to an immune activating environment and 3) potentially convert cold tumors to hot. We believe our differentiated approach to understanding and comprehensively interrogating cell types of the

TME positions us to fully exploit the promise of immunotherapy in cancer. Our current discovery efforts are focused on interrogating multiple cell types including macrophages, an innate immune cell, where there is evidence of the relationship of immunosuppressive macrophages to poor patient prognosis as described below.

Targeting the adaptive immune system: A proven approach benefiting a subset of patients

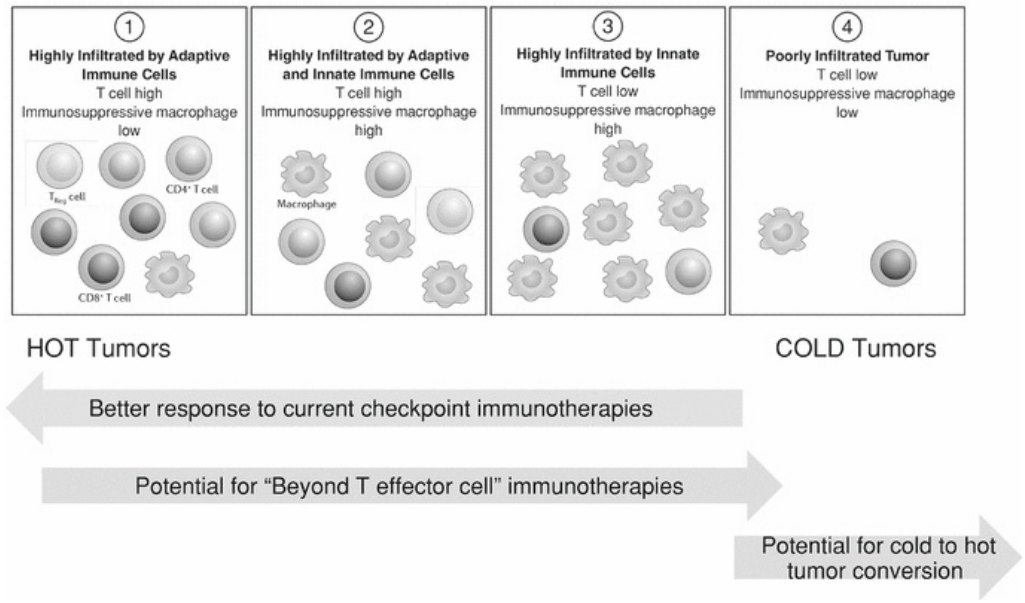
Most first generation immunotherapy treatments have focused on components of the adaptive arm of the immune system, targeting T effector cells either to "release the brakes" on the immune system through the blocking of inhibitory receptors on T cell checkpoints (such as PD-1 and CTLA-4) or to "step on the gas" activating receptors on T cells, such as our anti-ICOS program JTX-2011. This approach has successfully led to the approved medicines Yervoy, Keytruda, Opdivo and Tecentriq. However, only a minority of patients respond to these treatments as single agents. We believe there are multiple factors that contribute to the lack of response, such as insufficient numbers of T cells in the tumors. Other cell types, particularly those associated with the innate arm of the immune system such as macrophages, may also contribute to a diminished immune response.

Our assessment of the immune cell profile of many tumors through our Translational Science Platform suggests that tumors can be broadly categorized into the four categories described below:

1. Highly infiltrated by adaptive immune cells: T effector cell high and immunosuppressive macrophage low. T cell-directed immunotherapies such as anti-PD-1/anti-PD-L1 antibodies appear to induce responses in this type of TME.
2. Highly infiltrated by both adaptive and innate immune cells: T effector cell high and immunosuppressive macrophage cell high. T cell-directed immunotherapies such as PD-1 checkpoint inhibitors appear to induce responses in this type of TME and may derive additional benefit from suppressive macrophage-directed therapies.
3. Highly infiltrated by innate immune cells: T effector cell low and immunosuppressive macrophage high. Therapeutic responses of T cell-directed therapies are less prevalent, therefore an agent that targets macrophages, and is capable of converting the immunosuppressive TME, to an immune active TME could enable T cell-directed immunotherapies to work.
4. Poorly infiltrated: T effector cell low and immunosuppressive macrophage low. These cold tumor types may require additional approaches targeting other cell types within the TME such as stromal cells or other approaches that enable the infiltration of immune cells into the TME.

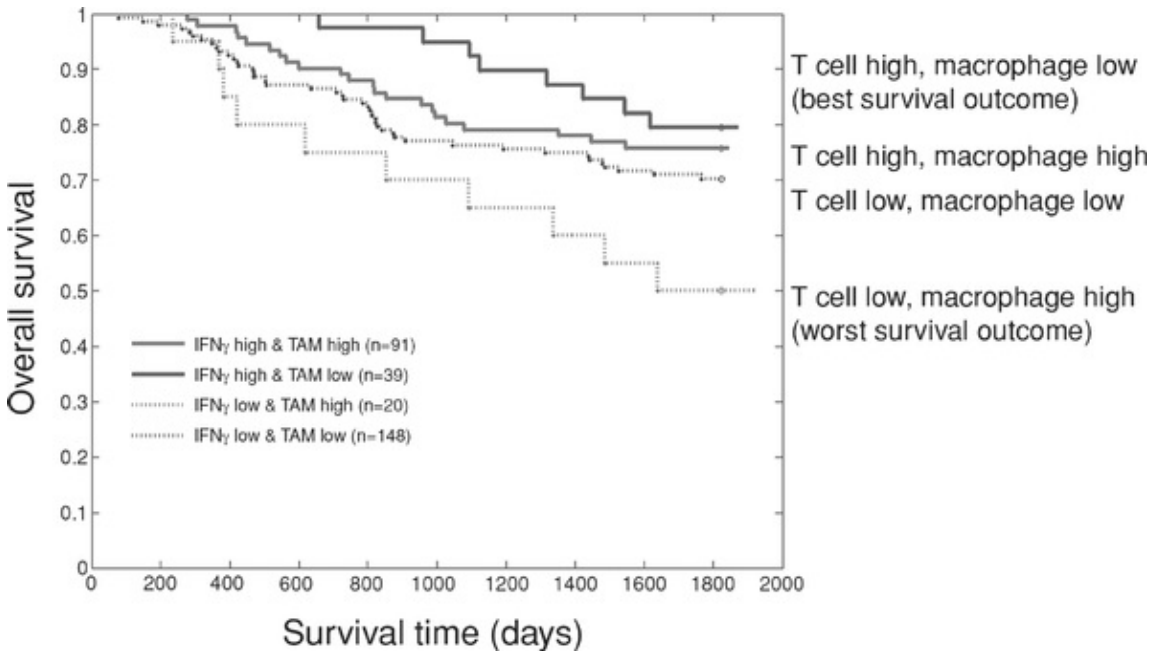
We believe that there is an increasing unmet medical need moving from category 1 to 4.

Figure 6: Characterization of Human Tumors by Immune Profile



Recently approved anti-PD-1 immunotherapies tend to be most effective in targeting highly T cell infiltrated tumors. As demonstrated through our Translational Science Platform, we used RNA profiling to assess the immune composition of approximately 300 melanoma patient samples to correlate patient outcome with key aspects of immune cell infiltrate of the TME. As shown in Figure 7 below, patients with tumors high in T effector cells and low in macrophages (tumor category 1 above) had the best outcome and, in contrast, those patients with tumors high in macrophages and low in T effector cells (tumor category 3 above) had the worst outcome. We believe that targeting immune cells beyond T cells presents a compelling opportunity to engage key immune cell targets to elicit anti-tumor effects and may have a meaningful impact on patients' lives. With evidence of the relationship of immunosuppressive macrophages to poor patient prognosis, we have prioritized our initial discovery efforts on developing novel immunotherapy agents targeting this innate immune cell type. However we are also using our unbiased bioinformatics approach to identify and prioritize targets on additional cellular components of the adaptive immune system, T regulatory cells and B cells, both cell types that have been implicated in influencing anti-tumor immune responses.

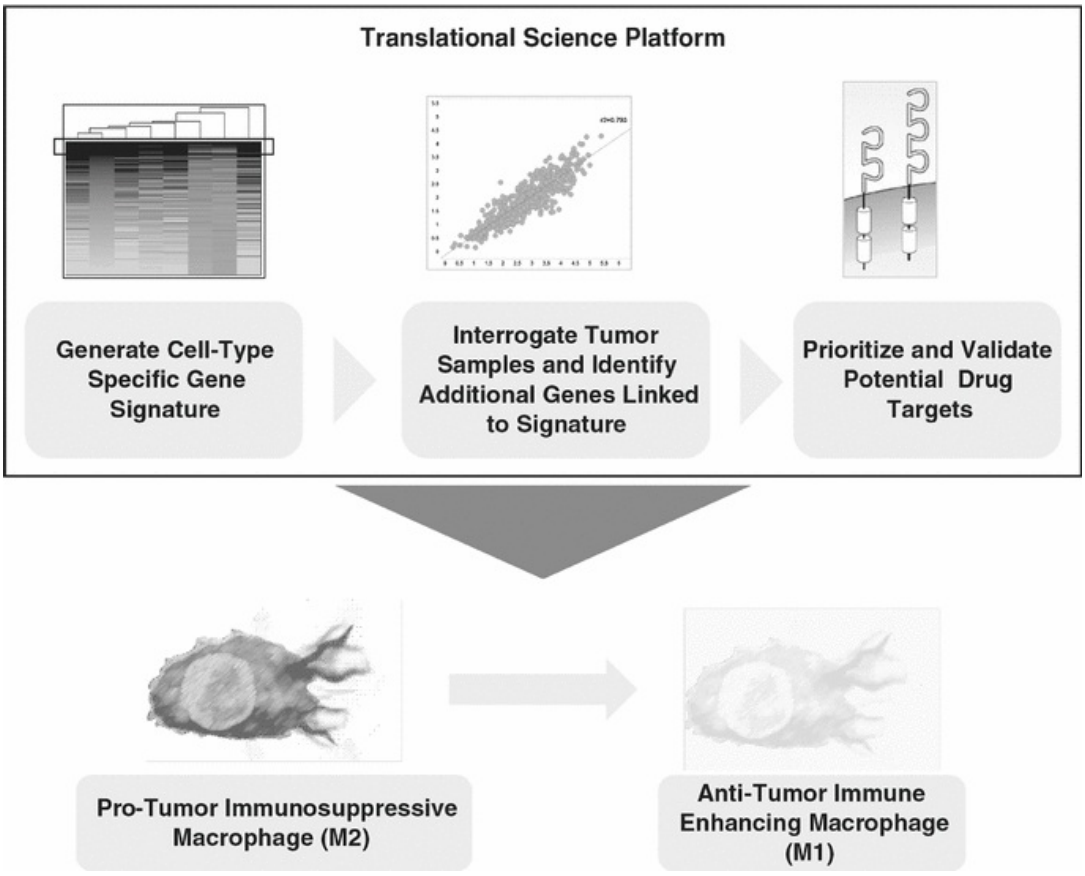
Figure 7: Survival Outcome in Melanoma Patients Associated with Types of Immune Cells within Tumors



Targeting the cells of the TME: a potential to expand the utility of cancer immunotherapies

Our Translational Science Platform enables us to take an unbiased, bioinformatics-based approach to focus on a particular cell type within human tumor samples. In so doing, we can use our Translational Science Platform to identify potential targets on specific cell subsets within a tumor. Using this approach, we have identified targets on the immunosuppressive M2 macrophages that, when treated with specific monoclonal antibodies, may be able to influence the composition of macrophages within the TME, converting them from immune-suppressing M2 to immune-enhancing M1 macrophages. We believe that by targeting these innate immune cells we may be able to 1) pursue tumor types not currently served by therapies which target adaptive immune cells, as well as 2) potentially convert the TME from an immunosuppressive environment to an immune-enhancing environment. To explore these cell types and identify targets, a proprietary gene signature specific for macrophages within human tumors was generated. We then used the macrophage RNA signature to identify other expressed sequences from tumors that correlated highly with the signature (i.e., indistinguishable from the signature based on a correlation value). We then evaluated those sequences for predicted protein structures that would be on the cell surface, and therefore amenable to monoclonal antibody targeting, and that also contained protein motifs suggestive of potential involvement in inhibitory/immunosuppressive signaling to the macrophage. This discovery paradigm, illustrated in Figure 8 below, resulted in the prioritization of ten molecules to pursue as potential macrophage immunotherapy targets.

Figure 8: Use of Translational Science Platform to Identify Potential Targets Capable of Converting Immunosuppressive Macrophages to Immune-enhancing Macrophages



We have analyzed these targets and have identified a novel, previously unrecognized protein-to-protein binding interaction between two of the targets, TIM3 and LILRB2. Based on initial data using monoclonal antibodies that we created to both targets, the LILRB2 target is the focus of our drug discovery efforts related to this novel interacting pair. The antibody candidates to LILRB2 were assessed in preclinical studies using human monocytes isolated from

peripheral blood which were placed under specific conditions that resulted in an M2-like immunosuppressive state. We then treated these M2-like macrophages with our antibodies to LILRB2 and the levels of cytokines were measured in order to evaluate if pro-inflammatory cytokines which are not present in the immunosuppressive state are produced after the binding of our antibodies. We observed that, in contrast to control antibodies, Jounce anti-LILRB2 antibodies reproducibly promoted the production of pro-inflammatory cytokines, such as TNF-a and IL-1b, and reduced the production of anti-inflammatory cytokines such as CCL2 and IL-10, illustrating the intended effect of conversion to an immune-enhancing macrophage. This panel of LILRB2 antibodies is currently undergoing our selection and optimization process prior to selection of a final development candidate.

In addition to using the immunosuppressive macrophage signature to identify potential targets of interest, we have also used it to identify particular patient populations that are enriched for tumors high in immunosuppressive macrophages and low in T cell content, a characteristic of tumors with poor outcomes. We believe that these tumor types may provide an opportunity for our anti-LILRB2 antibody in a tumor that would be expected to be less responsive to PD-1 checkpoint inhibitors.

Antibodies to additional targets, identified using our macrophage-specific approach, are also being generated and screened for their potential as cancer immunotherapies. We are also leveraging our Translational Science Platform to systematically and comprehensively interrogate cell types within the TME to enable us to develop therapies with the potential to benefit patients with tumors across the spectrum of tumors from hot to cold. This includes focusing on adaptive immune cells in addition to the immunosuppressive macrophages that may create a pro-tumor environment, such as B cells and T regulatory cells. We believe therapies targeting these cell types and cell subsets could complement existing approaches that focus on T effector cells and thereby benefit many patients who do not respond to the currently approved T effector cell-focused immunotherapies. We are also discovering and developing multiple approaches, including targeting stromal cells, with the aim of converting cold tumors to hot tumors, thereby making the tumors more amenable to immunotherapy, perhaps in combination approaches.

Manufacturing

We rely on and will continue to rely on our contract manufacturing organizations, or CMOs, for both drug substance and drug product. While we do not plan to develop our own full-scale manufacturing capabilities, we may consider establishing a small, flexible approach for supporting preclinical IND enabling studies and early clinical studies. As of now, all of our manufacturing is outsourced to well-established third-party manufacturers. We have entered into a long-term contract with a CMO for our JTX-2011 clinical trials and plan to enter into additional contracts with this or other manufacturers for additional supply.

For our outsourcing approach and during the course of preclinical development, we transfer the production process to CMOs. The technology transfer agreement generally obligates the CMO to, among other things, develop a production cell line, establish master and working cell banks, develop and qualify upstream and downstream processes, develop drug product process, and develop suitable analytical methods for test and release as well as stability testing. We receive material from our CMOs for preclinical testing. We receive clinical supply material manufactured in compliance with current Good Manufacturing Practice, or cGMP, and we conduct audits before and during the cooperation with a CMO, to ensure compliance with the mutually agreed process descriptions and to cGMP regulations.

Competition

The biotechnology and pharmaceutical industries, and the immuno-oncology subsector, are characterized by rapid evolution of technologies, fierce competition and strong defense of intellectual property. While we believe that our product candidate, discovery programs, technology, knowledge, experience, and scientific resources provide us with competitive advantages, we face competition from major pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions, among others.

Any product candidates that we successfully develop and commercialize will compete with currently approved therapies and new therapies that may become available in the future. Key product features that would affect our ability to effectively compete with other therapeutics include the efficacy, safety and convenience of our products and the ease of use and effectiveness of any complementary diagnostics and/or companion diagnostics. Our competitors fall primarily into the following groups of treatment:

- traditional cancer therapies, including chemotherapy;

- approved immunotherapy antibodies, anti-CTLA 4 (Yervoy, marketed by Bristol Myers Squibb Company) and anti-PD-1/anti-PD-L1 antibodies (Opdivo, Keytruda and Tecentriq, marketed by Bristol Myers Squibb Company, Merck & Co., and Genentech, Inc., respectively);
- anti-PD-L1/anti-PD-L1 immunotherapy antibodies in clinical trials, including those being developed by Merck KGaA and Pfizer, Inc. (avelumab, BLA submitted), MedImmune, Inc. (durvalumab, BLA submitted), MedImmune, Inc. (MEDI0680 in Phase I/II), Incyte (SHR-1210 in Phase II/III), Bristol-Myers Squibb Company (BMS-936559 in Phase I), Regeneron Pharmaceuticals, Inc./Sanofi (REGN2810 in Phase II), Tesaro, Inc. (TSR-042 in Phase I), and Novartis AG (PDR-001 in Phase II);
- an anti-ICOS program (GSK 3359609) in Phase I clinical trials, being developed by GlaxoSmithKline plc, for which patient enrollment began in the second quarter of 2016;
- other agonist immunotherapy antibodies in clinical development, including: anti-GITR antibodies being developed by Merck & Co., Inc. (MK-1248 and MK-4166 in Phase I), Leap Therapeutics, Inc. (TRX518 in Phase I), Bristol-Myers Squibb Company (BMS-986156 in Phase I/II), MedImmune, Inc. (MEDI1873 in Phase I), Novartis AG (GWN323 in Phase I) and Agenus, Inc./Incyte Corporation (INCAGN01876 in Phase I/II); anti-CD137 antibodies being developed by Pfizer, Inc. (utomilumab in Phase III) and Bristol-Myers Squibb Company (urelumab in Phase II); anti-OX40 antibodies being developed by MedImmune, Inc. (MEDI0562 in Phase I), Pfizer (PF-04518600 in Phase I), Bristol-Myers Squibb Company (BMS-986178 in Phase I/II), Genentech, Inc. (MOXR0916 in Phase II) and GlaxoSmithKline plc (GSK 3174998 in Phase I); and an anti-CD27 antibody being developed by Celldex Therapeutics, Inc. (varlilumab in Phase II); and
- therapies targeting macrophages, including: antagonists of CSF1R being developed by Plexxikon Inc. (PLX3397 in Phase III) and anti-CSF1R antibody being developed by Five Prime Therapeutics, Inc. and Bristol-Myers Squibb Company (FPA008 in Phase I/II), Roche Holding AG (RO5509554 in Phase I), and Eli Lily & Co. (IMC-CS4 in Phase I); and an anti-M-CSF antibody being developed by Pfizer, Inc. (PD-0360324 in Phase II); antagonists of CD47 being developed by Forty Seven, Inc. (CAMELLIA in Phase I), Celgene (CC-90002 in Phase I), and Trillium Therapeutics, Inc. (TTI-621 in Phase I).

The availability of reimbursement from government and other third-party payors will also significantly affect the pricing and competitiveness of our products. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

Many of the companies against which we may compete have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Intellectual property

Our intellectual property is critical to our business and we strive to protect it, including by obtaining and maintaining patent protection in the United States and internationally for our product candidates, novel biological discoveries, including new targets and applications, and other inventions that are important to our business. For our product candidates, generally we intend to first pursue patent protection covering both compositions of matter and methods of use. As we continue the development of our product candidates, we intend to identify additional means of obtaining patent protection that would potentially enhance commercial success, including through additional methods of use and biomarker and complementary diagnostic and/or companion diagnostic related claims.

The patent positions of biotechnology companies like ours are generally uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Consequently, we may not obtain or maintain adequate patent protection for any of our product candidates. As of March 1, 2017, with respect to JTX-2011, we own three pending U.S. provisional patent applications, one pending United States non-provisional application, five pending foreign patent applications, and two pending PCT patent applications within two patent families that cover compositions of matter and methods of use and ICOS-related biomarkers, and we do not own any issued patents. As of March 1, 2017 with respect to JTX-4014, we own one pending U.S. provisional patent

application that covers compositions of matter and methods of use, and we do not own any non-provisional applications or issued patents. We cannot predict whether the patent applications we pursue will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide any proprietary protection from competitors. Even if our pending patent applications are granted as issued patents, those patents, as well as any patents we license from third parties, may be challenged, circumvented or invalidated by third parties.

In addition, we exclusively in-licensed a patent portfolio from Sloan Kettering Institute for Cancer Research, Memorial Sloan Kettering Cancer Center and Memorial Hospital for Cancer, or MSK, and University of Texas MD Anderson Cancer Center, or MD Anderson, consisting of two issued U.S. patents, one issued Japanese patent, one issued Chinese patent, one issued Australian patent, one pending U.S. patent application, and five pending foreign patent applications. This licensed patent portfolio covers methods related to the use of an ICOS agonist in combination with blocking agents of certain T cell inhibitory receptors. The issued patents and the pending patent applications (if issued) licensed from MSK and MD Anderson, if the appropriate maintenance, renewal, annuity or other governmental fees are paid, are expected to expire in 2030, excluding any additional term for patent term adjustments or patent term extensions.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application. In the United States, the patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our products receive FDA approval, we expect to apply for patent term extensions on patents covering those products. We plan to seek patent term extensions to any of our issued patents in any jurisdiction where these are available, however there is no guarantee that the applicable authorities, including the FDA in the United States, will agree with our assessment of whether such extensions should be granted, and if granted, the length of such extensions.

We also rely on unpatented know-how, inventions and other proprietary information relating to JTX-2011, JTX-4014 and our other future product candidates. We seek to protect and maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. Our agreements with employees also provide that all inventions conceived by the employee in the course of employment with us or from the employee's use of our confidential information are our exclusive property. However, such confidentiality agreements and invention assignment agreements can be breached and we may not have adequate remedies for any such breach. For a more comprehensive discussion of the risks related to our intellectual property, please see "Risk factors—Risks Related to Intellectual Property."

Exclusive License Agreement with Sloan Kettering Institute for Cancer Research, Memorial Sloan Kettering Cancer Center, and Memorial Hospital for Cancer and Allied Diseases

In September 2015, we amended and restated an exclusive license agreement from December 2013 with Sloan Kettering Institute for Cancer Research, Memorial Sloan Kettering Cancer Center and Memorial Hospital for Cancer and Allied Diseases, or MSK. Pursuant to this amended and restated license agreement, MSK and The University of Texas MD Anderson Cancer Center, or MD Anderson, granted to us a worldwide exclusive license under certain patents to manufacture, develop and commercialize certain products and services, including those products for which the use in combination with another product for the treatment of any disease is covered by such patents (including, potentially, JTX-2011), and to practice certain methods covered by the patents.

Under the license agreement, we are obligated to use commercially reasonable efforts to commercialize at least one licensed product or licensed service as defined in the license agreement. We also are required to achieve the following developmental milestones by the end of 2019: achievement of initial efficacy of proof of concept, identification of a development candidate, and filing of an IND application with the FDA. As of September 30, 2016, we have achieved all of these milestones.

In connection with the license agreement, we issued to MSK and MD Anderson an aggregate of 60,974 shares of our common stock. We also paid an upfront license fee of $30,000 to MSK and MD Anderson. Commencing on the third anniversary of the effective date of the amended and restated license agreement, we must pay an annual maintenance fee ranging in the mid-four figures to the mid-five figures. The annual maintenance fee is fully credited against the royalty payments for the same year or any subsequent year or any other amount due under the license agreement. We are obligated to pay the MSK milestone payments of up to $3,475,000 for the first and second licensed products to achieve certain development and marketing approval milestones, including up to $2,725,000 for the first licensed product to achieve such developmental and marketing approval milestones. On a country-by-country basis and licensed product-by-licensed product or licensed service-by-licensed service basis, we are also obligated to pay the MSK a low single-digit percentage royalty on net sales of licensed products or licensed services, to the extent used in combination with another product for the treatment of any disease covered by the applicable patents, until the earlier of the expiration of the last valid patent claim covering such licensed product or licensed service in such country or twelve years after the first commercial sale of such licensed product or licensed service in such country. If we sublicense our rights under our license agreement with MSK, we would be obligated to pay the MSK a low double-digit percentage royalty of the total gross proceeds we receive in consideration of the grant of the sublicense, excluding royalties, research and development funding, payments for equity or debt securities and certain other expenses we have incurred that are reimbursed by the sublicensee.

Unless terminated earlier, the license agreement expires on the date that we no longer have any royalty payment obligations under the license agreement. We may terminate the license agreement for convenience in its entirety upon 30 days' prior written notice to MSK and MD Anderson. Either party may terminate the license agreement in its entirety in the event of an uncured material breach or the bankruptcy, insolvency, dissolution or winding up of the other party which is not dismissed or cured within a set period of time. If we terminate the license agreement because of MSK's and MD Anderson's uncured breach or insolvency, we will retain a non-exclusive, perpetual, irrevocable, fully paid-up, royalty-free worldwide license to the licensed patents. Upon expiration of our obligation to pay royalties for a licensed product or service in a country, our license to the licensed patents for such licensed product or service will become exclusive, perpetual, irrevocable, fully paid-up and royalty-free in such country.

Government Regulation

Government authorities in the United States at the federal, state and local level and in other countries regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of drug and biological products, such as JTX-2011, JTX-4014 and any future product candidates. Generally, before a new drug or biologic can be marketed, considerable data demonstrating its quality, safety and efficacy must be obtained, organized into a format specific for each regulatory authority, submitted for review and approved by the regulatory authority.

U.S. Drug Development

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementation regulations and biologics under the FDCA, the Public Health Service Act, or PHSA, and their implementing regulations. Both drugs and biologics also are subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or post-market may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, product recalls or market withdrawals, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement and civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

JTX-2011, JTX-4014 and any future product candidates must be approved by the FDA through either a New Drug Application, or NDA, or BLA, process before they may be legally marketed in the United States. The process generally involves the following:

- completion of extensive preclinical studies in accordance with applicable regulations, including studies conducted in accordance with good laboratory practice, or GLP, requirements;
- submission to the FDA of an IND application, which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, or ethics committee at each clinical trial site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with applicable IND regulations, good clinical practice, or GCP, requirements and other clinical trial-related regulations to establish the safety and efficacy of the investigational product for each proposed indication;
- submission to the FDA of an NDA or BLA;
- determination by the FDA within 60 days of its receipt of an NDA or BLA to accept the filing for review;
- satisfactory completion of a FDA pre-approval inspection of the manufacturing facility or facilities where the drug or biologic will be produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the drug or biologic's identity, strength, quality and purity;
- potential FDA audit of the preclinical and/or clinical trial sites that generated the data in support of the NDA or BLA; and
- FDA review and approval of the NDA or BLA, including consideration of the views of any FDA advisory committee, prior to any commercial marketing or sale of the drug or biologic in the United States.

The preclinical and clinical testing and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for JTX-2011, JTX-4014 and any future product candidates will be granted on a timely basis, or at all. The data required to support an NDA or BLA are generated in two distinct developmental stages: preclinical and clinical. The preclinical developmental stage generally involves laboratory evaluations of drug chemistry, formulation and stability, as well as studies to evaluate toxicity in animals, which support subsequent clinical testing. The sponsor must submit the results of the preclinical studies, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. An IND is a request for authorization from the FDA to administer an investigational product to humans, and must become effective before human clinical trials may begin.

The clinical stage of development involves the administration of the investigational product to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control, in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Furthermore, each clinical trial must be reviewed and approved by an IRB for each institution at which the clinical trial will be conducted to ensure that the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative, and must monitor the clinical trial until completed. There also are requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries.

A sponsor who wishes to conduct a clinical trial outside of the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. If a foreign clinical trial is not conducted under an IND, the sponsor may submit data from the clinical trial to the FDA in support of an NDA or BLA. The FDA will accept a well-designed and well-conducted foreign clinical study not conducted under an IND if the study was conducted in accordance with GCP requirements, and the FDA is able to validate the data through an onsite inspection if deemed necessary.

Preclinical Studies and IND

Preclinical studies include laboratory evaluation of product chemistry and formulation, as well as *in vitro* and animal studies to assess the potential for adverse events and in some cases to establish a rationale for therapeutic use.

The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations for safety/toxicology studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical studies, among other things, to the FDA as part of an IND. Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, may continue after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time, the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials

Clinical trials generally are conducted in three sequential phases, known as Phase I, Phase II and Phase III, and may overlap.

- Phase I clinical trials generally involve a small number of healthy volunteers or disease-affected patients who are initially exposed to a single dose and then multiple doses of the product candidate. The primary purpose of these clinical trials is to assess the metabolism, pharmacologic action, side effect tolerability and safety of the drug.
- Phase II clinical trials involve studies in disease-affected patients to determine the dose required to produce the desired benefits. At the same time, safety and further pharmacokinetic and pharmacodynamic information is collected, possible adverse effects and safety risks are identified and a preliminary evaluation of efficacy is conducted.
- Phase III clinical trials generally involve a large number of patients at multiple sites and are designed to provide the data necessary to demonstrate the effectiveness of the product for its intended use, its safety in use and to establish the overall benefit/risk relationship of the product and provide an adequate basis for product approval. These trials may include comparisons with placebo and/or other comparator treatments. The duration of treatment is often extended to mimic the actual use of a product during marketing.

Post-approval trials, sometimes referred to as Phase IV clinical trials, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase IV clinical trials as a condition of approval of an NDA or BLA.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from animal or *in vitro* testing or other studies that suggest a significant risk for human subjects and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure.

Phase I, Phase II and Phase III clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug or biologic has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether a trial may move forward at designated check points based on access to certain data from the trial. Concurrent with clinical trials, companies usually complete additional animal studies and also must develop additional information about the chemistry and physical characteristics of the drug or biologic as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product and, among other things, companies must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that JTX-2011, JTX-4014 and any future product candidates do not undergo unacceptable deterioration over their shelf life.

NDA/BLA and FDA Review Process

Following completion of the clinical trials, data are analyzed to assess whether the investigational product is safe and effective for the proposed indicated use or uses. The results of preclinical studies and clinical trials are then submitted to the FDA as part of an NDA or BLA, along with proposed labeling, chemistry and manufacturing information to ensure product quality and other relevant data. In short, the NDA or BLA is a request for approval to market the drug or biologic for one or more specified indications and must contain proof of safety and efficacy for a drug or safety, purity and potency for a biologic. The application may include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a product's use or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational product to the satisfaction of FDA. FDA approval of an NDA or BLA must be obtained before a drug or biologic may be marketed in the United States.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each NDA or BLA must be accompanied by a user fee. FDA adjusts the PDUFA user fees on an annual basis. According to the FDA's fee schedule, effective through September 30, 2017, the user fee for an application requiring clinical data, such as an NDA or BLA, is $2,038,100. PDUFA also imposes an annual product fee for human drugs and biologics (approximately $97,750) and an annual establishment fee of $512,000 on facilities used to manufacture prescription drugs and biologics. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on NDAs or BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

The FDA reviews all submitted NDAs and BLAs before it accepts them for filing, and may request additional information rather than accepting the NDA or BLA for filing. The FDA must make a decision on accepting an NDA or BLA for filing within 60 days of receipt. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA or BLA. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months, from the filing date, in which to complete its initial review of a new molecular-entity NDA or original BLA and respond to the applicant, and six months from the filing date of a new molecular-entity NDA or original BLA designated for priority review. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs or BLAs, and the review process is often extended by FDA requests for additional information or clarification.

Before approving an NDA or BLA, the FDA will conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with cGMP requirements. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The FDA also may audit data from clinical trials to ensure compliance with GCP requirements. Additionally, the FDA may refer applications for novel drug products or drug products which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions, if any. The FDA is not bound by recommendations of an advisory committee, but it considers such recommendations when making decisions on approval. The FDA likely will reanalyze the clinical trial data, which could result in extensive discussions between the FDA and the applicant during the review process. After the FDA evaluates an NDA or BLA, it will issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes all of the specific deficiencies in the NDA or BLA identified by the FDA. The Complete Response Letter may require additional clinical data, additional pivotal Phase III clinical trial(s) and/or other significant and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the NDA or BLA, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information are submitted, the FDA may decide that the NDA or BLA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making the product available in the United States for this type of disease or condition will be recovered from sales of the product.

Orphan drug designation must be requested before submitting an NDA or BLA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication for seven years from the date of such approval, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity by means of greater effectiveness, greater safety or providing a major contribution to patient care or in instances of drug supply issues. Competitors, however, may receive approval of either a different product for the same indication or the same product for a different indication but that could be used off-label in the orphan indication. Orphan drug exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval before we do for the same product, as defined by the FDA, for the same indication we are seeking approval, or if one of our products is determined to be contained within the scope of the competitor's product for the same indication or disease. If one of our products designated as an orphan drug receives marketing approval for an indication broader than that which is designated, it may not be entitled to orphan drug exclusivity. Orphan drug status in the European Union has similar, but not identical, requirements and benefits.

Expedited Development and Review Programs

The FDA has a fast track program that is intended to expedite or facilitate the process for reviewing new drugs and biologics that meet certain criteria. Specifically, new drugs and biologics are eligible for fast track designation if they are intended to treat a serious or life threatening condition and preclinical or clinical data demonstrate the potential to address unmet medical needs for the condition. Fast track designation applies to both the product and the specific indication for which it is being studied. The sponsor can request the FDA to designate the product for fast track status any time before receiving NDA or BLA approval, but ideally no later than the pre-NDA or pre-BLA meeting.

Any product submitted to the FDA for marketing, including under a fast track program, may be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. Any product is eligible for priority review if it treats a serious or life-threatening condition and, if approved, would provide a significant improvement in safety and effectiveness compared to available therapies.

The FDA will attempt to direct additional resources to the evaluation of an application for a new drug or biologic designated for priority review in an effort to facilitate the review. A product may also be eligible for accelerated approval, if it treats a serious or life-threatening condition and generally provides a meaningful advantage over available therapies. In addition, it must demonstrate an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, which is reasonably likely to predict an effect on IMM or other clinical benefit. As a condition of approval, the FDA may require that a sponsor of a drug or biologic receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. If the FDA concludes that a drug or biologic shown to be effective can be safely used only if distribution or use is restricted, it will require such post-marketing restrictions, as it deems necessary to assure safe use of the product.

Additionally, a drug or biologic may be eligible for designation as a breakthrough therapy if the product is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over currently approved therapies on one or more clinically significant endpoints. The benefits of breakthrough therapy designation include the same benefits as fast track designation, plus intensive guidance from the FDA to ensure an efficient drug development program. Fast track designation, priority review, accelerated approval and breakthrough therapy designation do not change the standards for approval, but may expedite the development or approval process.

Pediatric Information

Under the Pediatric Research Equity Act, or PREA, an NDA or BLA or supplement to a NDA or BLA must contain data to assess the safety and efficacy of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of pediatric data or full or partial waivers. The Food and Drug Administration Safety and Innovation Act, or FDASIA, amended the FDCA to require that a sponsor who is planning

to submit a marketing application for a drug that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, or PSP, within 60 days of an end-of-Phase II meeting or, if there is no such meeting, as early as practicable before the initiation of the Phase III or Phase II/III study. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA and the sponsor must reach an agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical trials and/or other clinical development programs.

Post-marketing Requirements

Following approval of a new product, the manufacturer and the approved product are subject to continuing regulation by the FDA, including, among other things, monitoring and record-keeping activities, reporting of adverse experiences, complying with promotion and advertising requirements, which include restrictions on promoting drugs for unapproved uses or patient populations (known as "off-label use") and limitations on industry-sponsored scientific and educational activities. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such uses. Prescription drug promotional materials must be submitted to the FDA in conjunction with their first use. Further, if there are any modifications to the drug or biologic, including changes in indications, labeling or manufacturing processes or facilities, the applicant may be required to submit and obtain FDA approval of a new NDA/BLA or NDA/BLA supplement, which may require the development of additional data or preclinical studies and clinical trials.

The FDA may also place other conditions on approvals including the requirement for a Risk Evaluation and Mitigation Strategy, or REMS, to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the NDA or BLA must submit a proposed REMS. The FDA will not approve the NDA or BLA without an approved REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Product approvals may be withdrawn for non-compliance with regulatory requirements or if problems occur following initial marketing.

FDA regulations require that products be manufactured in specific approved facilities and in accordance with cGMP regulations. We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products in accordance with cGMP regulations. These manufacturers must comply with cGMP regulations that require, among other things, quality control and quality assurance, the maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Manufacturers and other entities involved in the manufacture and distribution of approved drugs or biologics are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP requirements and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance. The discovery of violative conditions, including failure to conform to cGMP regulations, could result in enforcement actions, and the discovery of problems with a product after approval may result in restrictions on a product, manufacturer or holder of an approved NDA or BLA, including recall.

Companion Diagnostics and Complementary Diagnostics

We believe that the success of our product candidates may depend, in part, on the development and commercialization of either a companion diagnostic or complementary diagnostic. Companion diagnostics and complementary diagnostics can identify patients who are most likely to benefit from a particular therapeutic product, identify patients likely to be at increased risk for serious side effects as a result of treatment with a particular therapeutic product, or monitor response to treatment with a particular therapeutic product for the purpose of adjusting treatment to achieve improved safety or effectiveness. Companion diagnostics and complementary diagnostics are regulated as medical devices by the FDA and, as such, require either clearance or approval prior to commercialization. The level of risk combined with available controls to mitigate risk determines whether a companion diagnostic device requires Premarket Approval Application, or PMA, approval or is cleared through the 510(k) premarket notification process. For a novel therapeutic product for which a companion diagnostic device is essential for the safe and effective use of the product, the companion diagnostic device should be developed and approved or 510(k)-cleared contemporaneously with the therapeutic. The use of the companion diagnostic device

will be stipulated in the labeling of the therapeutic product. This is also true for a complementary diagnostic, although it is not a prerequisite for receiving the therapeutic.

Other Regulatory Matters

Manufacturing, sales, promotion and other activities following product approval are also subject to regulation by numerous regulatory authorities in the United States in addition to the FDA, including the Centers for Medicare & Medicaid Services, other divisions of the Department of Health and Human Services, the Department of Justice, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments.

For example, in the United States, sales, marketing and scientific and educational programs also must comply with state and federal fraud and abuse laws. These laws include the federal Anti-Kickback Statute, which makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf), to knowingly and willfully solicit, receive, offer or pay any remuneration that is intended to induce or reward referrals, including the purchase, recommendation, order or prescription of a particular drug, for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. Violations of this law are punishable by up to five years in prison, criminal fines, administrative civil money penalties and exclusion from participation in federal healthcare programs. In addition, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the Affordable Care Act, among other things, amends the intent requirement of the federal Anti-Kickback Statute and criminal healthcare fraud statutes created by the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it. Moreover, the Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Although we would not submit claims directly to payors, manufacturers also can be held liable under the federal False Claims Act, which prohibits anyone from knowingly presenting, or causing to be presented, for payment to federal programs (including Medicare and Medicaid) claims for items or services, including drugs or biologics, that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services. The government may deem manufacturers to have "caused" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. In addition, our future activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of prices used to calculate Medicaid rebate information and other information affecting federal, state and third-party reimbursement for our products, and the sale and marketing of our products, are subject to scrutiny under this law. Penalties for a False Claims Act violation include three times the actual damages sustained by the government, plus mandatory civil penalties of between $10,781 and $21,563 for each separate false claim, the potential for exclusion from participation in federal healthcare programs and the potential implication of various federal criminal statutes.

Pricing and rebate programs must comply with the Medicaid rebate requirements of the U.S. Omnibus Budget Reconciliation Act of 1990 and more recent requirements in the Affordable Care Act. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, sales, promotion and other activities also are potentially subject to federal and state consumer protection and unfair competition laws.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The failure to comply with any of these laws or regulatory requirements subjects firms to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, requests for recall, seizure of products, total or partial suspension of production, denial or withdrawal of product approvals or refusal to allow a firm to enter into supply contracts, including government contracts. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Prohibitions or restrictions on sales or withdrawal of future products marketed by us could materially affect our business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of JTX-2011, JTX-4014 and any future product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit restoration of the patent term of up to five years as compensation for patent term lost during product development and FDA regulatory review process. Patent term restoration, however, cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA or BLA plus the time between the submission date of an NDA or BLA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may apply for restoration of patent term for our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA or BLA.

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of a NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for a NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

An abbreviated approval pathway for biological products shown to be biosimilar to, or interchangeable with, an FDA-licensed reference biological product was created by the Biologics Price Competition and Innovation Act of 2009, or BPCI Act, as part of the Affordable Care Act. This amendment to the PHSA, in part, attempts to minimize duplicative testing. Biosimilarity, which requires that the biological product be highly similar to the reference product notwithstanding minor differences in clinically inactive components and that there be no clinically meaningful differences between the product and the reference product in terms of safety, purity and potency, can be shown through analytical studies, animal studies and a clinical trial or trials. Interchangeability requires that a biological product be biosimilar to the reference product and that the product can be expected to produce the same clinical results as the reference product in any given patient and, for products administered multiple times to an individual, that the product and the reference product may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biological product without such alternation or switch. Complexities associated with the larger, and often more complex, structure of biological products as compared to small molecule drugs, as well as the processes by which such products are manufactured, pose significant hurdles to implementation that are still being worked out by the FDA.

A reference biological product is granted twelve years of data exclusivity from the time of first licensure of the product, and the FDA will not accept an application for a biosimilar or interchangeable product based on the reference biological product until four years after the date of first licensure of the reference product. "First licensure"

typically means the initial date the particular product at issue was licensed in the United States. Date of first licensure does not include the date of licensure of (and a new period of exclusivity is not available for) a biological product if the licensure is for a supplement for the biological product or for a subsequent application by the same sponsor or manufacturer of the biological product (or licensor, predecessor in interest, or other related entity) for a change (not including a modification to the structure of the biological product) that results in a new indication, route of administration, dosing schedule, dosage form, delivery system, delivery device or strength, or for a modification to the structure of the biological product that does not result in a change in safety, purity, or potency. Therefore, one must determine whether a new product includes a modification to the structure of a previously licensed product that results in a change in safety, purity, or potency to assess whether the licensure of the new product is a first licensure that triggers its own period of exclusivity. Whether a subsequent application, if approved, warrants exclusivity as the "first licensure" of a biological product is determined on a case-by-case basis with data submitted by the sponsor.

Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing regulatory exclusivity periods. This six-month exclusivity may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial. Furthermore, a biological product seeking licensure as biosimilar to or interchangeable with a reference product indicated for a rare disease or condition and granted seven years of orphan drug exclusivity may not be licensed by the FDA for the protected orphan indication until after the expiration of the seven-year orphan drug exclusivity period or the 12-year reference product exclusivity, whichever is later.

In April 2014, the EU adopted a new Clinical Trials Regulation (EU) No 536/2014, which is set to replace the current Clinical Trials Directive 2001/20/EC. It is expected that the new Clinical Trials Regulation will apply by October 2018. It will overhaul the current system of approvals for clinical trials in the EU. Specifically, the new legislation, which will be directly applicable in all member states, aims at simplifying and streamlining the approval of clinical trials in the EU. For instance, the new Clinical Trials Regulation provides for a streamlined application procedure via a single entry point and strictly defined deadlines for the assessment of clinical trial applications.

European Union Drug Development

In the European Union, our future products also may be subject to extensive regulatory requirements. As in the United States, medicinal products can be marketed only if a marketing authorization from the competent regulatory agencies has been obtained.

Similar to the United States, the various phases of preclinical and clinical research in the European Union are subject to significant regulatory controls. Although the EU Clinical Trials Directive 2001/20/EC has sought to harmonize the EU clinical trials regulatory framework, setting out common rules for the control and authorization of clinical trials in the EU, the EU Member States have transposed and applied the provisions of the Directive differently. This has led to significant variations in the member state regimes. Under the current regime, before a clinical trial can be initiated it must be approved in each of the EU countries where the trial is to be conducted by two distinct bodies: the National Competent Authority, or NCA, and one or more Ethics Committees, or ECs. Under the current regime all suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the NCA and ECs of the Member State where they occurred.

European Union Drug Review and Approval

In the European Economic Area, or EEA, which is comprised of the 28 Member States of the European Union (plus Norway, Iceland and Liechtenstein), medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. There are two types of marketing authorizations.

- The Community MA is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use, or CHMP, of the European Medicines Agency, or EMA, and is valid throughout the entire territory of the EEA. The Centralized Procedure is mandatory for certain types of products, such as biotechnology medicinal products, orphan medicinal products, advanced-therapy medicines such as gene-therapy, somatic cell-therapy or tissue-engineered medicines and medicinal products containing a new active substance indicated for the treatment of HIV, AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and other immune dysfunctions and viral diseases. The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EEA, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU.

- National MAs, which are issued by the competent authorities of the Member States of the EEA and only cover their respective territory, are available for products not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in another Member States through the Mutual Recognition Procedure. If the product has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the Decentralized Procedure. Under the Decentralized Procedure an identical dossier is submitted to the competent authorities of each of the Member States in which the MA is sought, one of which is selected by the applicant as the Reference Member State, or RMS. The competent authority of the RMS prepares a draft assessment report, a draft summary of the product characteristics, or SPC, and a draft of the labeling and package leaflet, which are sent to the other Member States (referred to as the Member States Concerned) for their approval. If the Member States Concerned raise no objections, based on a potential serious risk to public health, to the assessment, SPC, labeling, or packaging proposed by the RMS, the product is subsequently granted a national MA in all the Member States (i.e., in the RMS and the Member States Concerned).

Under the above described procedures, before granting the MA, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

European Union New Chemical Entity Exclusivity

In the European Union, new chemical entities, sometimes referred to as new active substances, qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity. The data exclusivity, if granted, prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic application for eight years, after which generic marketing authorization can be submitted, and the innovator's data may be referenced, but not approved for two years. The overall ten-year period will be extended to a maximum of 11 years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are determined to bring a significant clinical benefit in comparison with currently approved therapies.

European Union Orphan Designation and Exclusivity

In the European Union, the European Commission, upon recommendation of the EMA's Committee for Orphan Medicinal Products grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in the European Union community (or where it is unlikely that the development of the medicine would generate sufficient return to justify the investment) and for which no satisfactory method of diagnosis, prevention or treatment has been authorized (or, if a method exists, the product would be a significant benefit to those affected).

In the European Union, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity is granted following medicinal product approval. This period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity. Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Rest of the World Regulation

For other countries outside of the European Union and the United States, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. Additionally, the clinical trials must be conducted in accordance with GCP requirements and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

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

Reimbursement

Sales of our products will depend, in part, on the extent to which our products will be covered by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. In the United States no uniform policy of coverage and reimbursement for drug or biological products exists. Accordingly, decisions regarding the extent of coverage and amount of reimbursement to be provided for any of our products will be made on a payor-by-payor basis. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be obtained.

The United States government, state legislatures and foreign governments have shown significant interest in implementing cost containment programs to limit the growth of government-paid health care costs, including price-controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, the Affordable Care Act contains provisions that may reduce the profitability of drug products through increased rebates for drugs reimbursed by Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Adoption of general controls and measures, coupled with the tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceutical drugs.

The Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of the Department of Health and Human Services as a condition for states to receive federal matching funds for the manufacturer's outpatient drugs furnished to Medicaid patients. The Affordable Care Act made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers' rebate liability by raising the minimum basic Medicaid rebate on most branded prescription drugs from 15.1% of average manufacturer price, or AMP, to 23.1% of AMP and adding a new rebate calculation for "line extensions" (i.e., new formulations, such as extended release formulations) of solid oral dosage forms of branded products, as well as potentially impacting their rebate liability by modifying the statutory definition of AMP. The Affordable Care Act also expanded the universe of Medicaid utilization subject to drug rebates by requiring pharmaceutical manufacturers to pay rebates on Medicaid managed care utilization and by enlarging the population potentially eligible for Medicaid drug benefits.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Unlike Medicare Part A and B, Part D coverage is not standardized. While all Medicare drug plans must give at least a standard level of coverage set by Medicare, Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing approval. However, any negotiated prices for our products covered by a Part D prescription drug plan likely will be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

For a drug product to receive federal reimbursement under the Medicaid or Medicare Part B programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the AMP and Medicaid rebate amounts reported by the manufacturer. The Affordable Care Act expanded the types of entities eligible to receive discounted 340B pricing, although, under the current state of the law, with the exception of children's hospitals, these newly eligible entities will not be eligible to receive discounted 340B pricing on orphan drugs. In addition, as 340B drug pricing is determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase.

As noted above, the marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. An increasing emphasis on cost containment measures in the United States has increased and we expect will continue to

increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

In addition, in most foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing and reimbursement vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the United States and generally prices tend to be significantly lower.

Some of the provisions of the Affordable Care Act have yet to be fully implemented, while certain provisions have been subject to judicial and Congressional challenges. In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, that while not a law, is widely viewed as the first step toward the passage of legislation that would repeal certain aspects of the Affordable Care Act. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from, or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal burden on states or a cost, fee, tax, penalty or regulatory burden on individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the Affordable Care Act that are repealed. Thus, the full impact of the Affordable Care Act, any law replacing elements of it, or the political uncertainty surrounding any repeal or replacement legislation on our business remains unclear.

Employees

As of December 31, 2016, we had 85 full-time employees. 32 of our employees have Ph.D. or M.D. degrees and 61 of our employees are engaged in research and development activities. None of our employees are represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Legal Proceedings

We are not currently a party to any material legal proceedings.

Corporate Information

We were incorporated under the laws of the State of Delaware in March 2012. Our principal offices are located at 1030 Massachusetts Avenue, Cambridge, MA 02138, and our telephone number is (857) 259-3840. Our website address is www.jouncetx.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this Annual Report on Form 10-K. You should not rely on any such information in making your decision whether to purchase our common stock.

Available Information

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934, as amended (the Exchange Act). The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at www.sec.gov.

Copies of each of our filings with the SEC on Form 10-K, Form 10-Q and Form 8-K and all amendments to those reports, can be viewed and downloaded free of charge at our website, www.jouncex.com after the reports and amendments are electronically filed with, or otherwise furnished to, the SEC.

Our code of conduct, corporate governance guidelines and the charters of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are available through our website at www.jouncetx.com.

ITEM 1A. Risk Factors

Our business is subject to numerous risks. The following important factors, among others, could cause our actual results to differ materially from those expressed in forward-looking statements made by us or on our behalf in this Annual Report on Form 10-K and other filings with the Securities and Exchange Commission, or the SEC, press releases, communications with investors, and oral statements. Actual future results may differ materially from those anticipated in our forward-looking statements. We undertake no obligation to update any forward-looking statements, whether as a result of new information, future events, or otherwise.

Risks Related to Product Development and Regulatory Process

We are early in our development efforts. Our lead product candidate, JTX-2011, is in early-stage clinical development. If we are unable to advance JTX-2011 through clinical development, or advance JTX-4014 or any other future product candidates to clinical development, or obtain marketing approval and ultimately commercialize any product candidates or experience significant delays in doing so, our business will be materially harmed.

We are early in our development efforts, and our lead product candidate, JTX-2011, is still in the early stages of clinical development. We have invested substantially all of our efforts and financial resources in the identification of targets and preclinical and clinical development of monoclonal antibodies, or mAbs, including the development of our lead product candidate, JTX-2011, and JTX-4014. We began a multi-arm Phase I/II clinical trial for JTX-2011 in August 2016.

Our other efforts have been invested in early stage, preclinical programs. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of JTX-2011, JTX-4014 or any other future product candidates, which may never occur. We currently generate no revenues from sales of any products, and we may never be able to develop or commercialize a marketable product. JTX-2011, JTX-4014 and any other future product candidates will require additional preclinical and clinical development, management of clinical, preclinical and manufacturing activities, marketing approval in the United States and other markets, demonstrating effectiveness to pricing and reimbursement authorities, obtaining sufficient manufacturing supply for both clinical development and commercial production, building of a commercial organization, and substantial investment and significant marketing efforts before we generate any revenues from product sales. In addition, our product development programs contemplate the development of complementary diagnostics and/or companion diagnostics, which are assays or tests to identify an appropriate patient population. Complementary diagnostics and companion diagnostics are subject to regulation as medical devices and, if there are no adequate complementary diagnostics and/or companion diagnostics currently on the market for our product candidates, we may elect to advance a diagnostic and that diagnostic would have to be approved or cleared for marketing by the FDA or comparable foreign regulatory agencies before we could commercialize it. The success of JTX-2011, JTX-4014 and any other future product candidates will depend on several factors, including the following:

- successful completion of preclinical studies of JTX-4014 and any future product candidates;
- successful completion of non-clinical toxicology studies that may be required for regulatory approval of JTX-2011;
- acceptance of Investigational New Drug applications, or INDs, for our planned clinical trials or future clinical trials;
- successful enrollment and completion of clinical trials;
- demonstration that the combination of JTX-2011 with JTX-4014 provides the same clinical benefit as JTX-2011 combined with nivolumab;
- demonstration of a benefit/risk profile for JTX-2011 and future products that is sufficient to support a successful Biologics License Application, or BLA;
- successful development and marketing approval and clearance of complementary diagnostics and/or companion diagnostics for use with JTX-2011, JTX-4014 or any other future product candidates, if applicable;
- receipt and maintenance of marketing approvals from applicable regulatory authorities;

- approval by national pricing and reimbursement agencies (such as NICE, National Institute for Health Care and Excellence in the United Kingdom);
- establishing agreements with third-party manufacturers for clinical supply for our clinical trials and commercial manufacturing, if our product candidate is approved;
- obtaining and maintaining patent and trade secret protection or regulatory exclusivity for our product candidates;
- launching commercial sales of JTX-2011, JTX-4014 or any other future product candidates, if and when approved;
- acceptance of the product candidate or any other future product candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining healthcare coverage and adequate reimbursement;
- enforcing and defending intellectual property rights and claims;
- successful completion of clinical confirmatory trials to verify clinical benefit, if applicable; and
- maintaining a continued acceptable safety profile of the product candidates following approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize JTX-2011, JTX-4014 or any other future product candidates, which would materially harm our business. If we do not receive marketing approvals for JTX-2011, JTX-4014 or any other future product candidates, we may not be able to continue our operations.

We rely on our Translational Science Platform to identify and develop product candidates. Our competitive position could be materially harmed if our competitors develop a platform similar to our Translational Science Platform and develop rival product candidates.

We rely on unpatented know-how, inventions and other proprietary information, to maintain our competitive position. We consider know-how to be our primary intellectual property with respect to our Translational Science Platform. Know-how can be difficult to protect. In particular, we anticipate that with respect to this platform, this know-how may over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of skilled personnel.

We cannot rule out that our competitors may have or obtain the knowledge necessary to analyze and characterize tumors for the purpose of identifying and developing products that could compete with JTX-2011, JTX-4014 or any future product candidates we develop. Our competitors may also have significantly greater financial, product development, technical, and human resources and access to other human tumors than we do and may have significantly greater experience in using translational science methodology to identify and develop product candidates.

We may not be able to prohibit our competitors from using translational science methods to develop product candidates, including such methods that are the same as or similar to our own. If our competitors use translational science methods to identify and develop products that compete with JTX-2011, JTX-4014 or any future product candidates we develop, our ability to develop and market a promising product or product candidate may diminish substantially, which could have a material adverse effect on our business prospects, financial condition, and results of operations.

Clinical product development involves a lengthy and expensive process, with an uncertain outcome. We will incur additional costs in connection with, and may experience delays, in completing, or ultimately be unable to complete, the development and commercialization of JTX-2011, JTX-4014, any other future product candidates, and any complementary diagnostics and/or companion diagnostics.

Our lead product candidate is in early-stage clinical development and its risk of failure is high. It is impossible to predict when or if JTX-2011, JTX-4014 and any other future product candidates will prove effective and safe in humans and will receive marketing approval. Before obtaining marketing approval from regulatory authorities for the sale of JTX-2011, JTX-4014 or any other future product candidates, we must complete preclinical studies and then conduct extensive clinical trials to demonstrate the safety and efficacy of JTX-2011, JTX-4014 and any other future product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical development testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their product candidates. Our preclinical studies and clinical trials may not be successful.

We submitted our Investigational New Drug Application for JTX-2011 to the FDA in July 2016 and initiated our Phase I/II clinical trials in August 2016. Enrollment in our clinical trial in certain cohorts is being enriched for patients based on their having discernible levels of ICOS or related biomarkers within their tumors. The FDA or comparable foreign regulatory authorities could change their position on the acceptability of our trial designs or the clinical endpoints selected, which may require us to complete more preclinical studies or provide additional data before continuing clinical trials. In the event we are required to satisfy additional FDA requests, the completion of our clinical trials for JTX-2011 may be delayed. Successful completion of our clinical trials is a prerequisite to submitting a BLA to the FDA and a Marketing Authorization Application, or MAA, in Europe for JTX-2011, JTX-4014 and any other future product candidates and, consequently, the ultimate approval and commercial marketing of JTX-2011, JTX-4014 and our other future product candidates. We do not know whether any of our clinical trials will be completed on schedule, if at all.

We may experience delays in completing our preclinical studies and initiating or completing clinical trials, and we may experience numerous unforeseen events during, or as a result of, any potential future clinical trials that could delay or prevent our ability to receive marketing approval or commercialize JTX-2011, JTX-4014 and any other future product candidates, including:

- regulators or institutional review boards, or IRBs, or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective contract research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- clinical trials of JTX-2011, JTX-4014 and any other future product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials or we may decide to abandon product development programs;
- the number of patients required for clinical trials of JTX-2011, JTX-4014 and any other future product candidates may be larger than we anticipate;
- it may be difficult to enroll a sufficient number of patients with a predictive biomarker or enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, or may deviate from the clinical trial protocol or drop out of the trial, which may require that we add new clinical trial sites or investigators;
- we may elect to, or regulators or IRBs or ethics committees may require that we or our investigators, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unreasonable and significant health risks;

- the cost of clinical trials of JTX-2011, JTX-4014 and any other future product candidates may be greater than we anticipate;
- the supply or quality of materials for JTX-2011, JTX-4014 and any other future product candidates or other materials necessary to conduct clinical trials of JTX-2011, JTX-4014 and any other future product candidates may be insufficient or inadequate;
- the size of the patient population required to validate our JTX-2011 predictive biomarker strategy may be larger than we anticipate;
- Competitors may obtain regulatory approval ahead of us for compounds similar to ours, preventing us from obtaining regulatory approval despite positive clinical data;
- JTX-2011, JTX-4014 and any other future product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or IRBs or ethics committees to suspend or terminate the trials, or reports may arise from preclinical or clinical testing of other similar cancer therapies that raise safety or efficacy concerns about JTX-2011, JTX-4014 and any other future product candidates; and
- the FDA or other regulatory authorities may require us to submit additional data or impose other requirements before permitting us to initiate a clinical trial.

We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted or ethics committees, or by the FDA or other regulatory authorities, or recommended for suspension or termination by the Data Safety Monitoring Board, or DSMB, for such trial . Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, including those issues or effects seen in other drugs or drug candidates in the class to which our drug candidates belong, failure to demonstrate a benefit from using a product, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of marketing approval of JTX-2011, JTX-4014 and any other future product candidates. Further, the FDA or other regulatory authorities may disagree with our clinical trial design and our interpretation of data from clinical trials, or may change the requirements for approval even after it has reviewed and commented on the design for our clinical trials.

If we are required to conduct additional clinical trials or other testing of JTX-2011, JTX-4014 and any other future product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of JTX-2011, JTX-4014 and any other future product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for JTX-2011, JTX-4014 and any other future product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- be subject to post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know whether any of our clinical trials will need to be restructured, or will be completed on schedule, or will begin as planned, or at all. Significant preclinical study or clinical trial delays could also shorten any periods during which we may have the exclusive right to commercialize JTX-2011, JTX-4014 and any other future product candidates, or allow our competitors to bring products to market before we do, and impair our ability to successfully commercialize JTX-2011, JTX-4014 and any other future product candidates and may harm our business and results of operations. Any delays in our preclinical or future clinical development programs may harm our business, financial condition and prospects significantly.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise be adversely affected.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The enrollment of patients depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- our ability to enroll sufficient number of patients with a predictive biomarker;
- the size of the patient population required for analysis of the trial's primary endpoints;
- the proximity of patients to study sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating;
- our ability to obtain and maintain patient consents for participation in our clinical trials and, where appropriate, biopsies for future patient enrichment efforts; and
- the risk that patients enrolled in clinical trials will drop out of the trials before completion or, because they are late-stage cancer patients, will not survive the full terms of the clinical trials.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as JTX-2011, JTX-4014 and any other future product candidates. This competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials at such sites. Moreover, because JTX-2011, JTX-4014 and any other future product candidates represent a departure from more commonly used methods for cancer treatment, potential patients and their doctors may be inclined to use conventional therapies, such as chemotherapy, rather than enroll patients in our ongoing or any future clinical trial.

Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of JTX-2011, JTX-4014 and any other future product candidates.

We have only recently initiated our Phase I/II clinical trial of JTX-2011, and JTX-2011, JTX-4014 and any other future product candidate we develop may cause undesirable side effects or have other properties when used alone or in combination with other approved pharmaceutical products or investigational new drugs that could halt their clinical development, prevent their marketing approval, limit their commercial potential or result in significant negative consequences.

Undesirable or clinically unmanageable side effects could occur and cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of marketing approval by the FDA or comparable foreign regulatory authorities. Results of our trials could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics.

For example, in the context of immunotherapies, in a Phase I clinical trial of TeGenero AG's product candidate TGN1412, when healthy volunteer subjects received the immunotherapy product candidate, they experienced cytokine release syndrome resulting in acute renal failure and acute respiratory distress syndrome requiring interventions such as dialysis and critical care support. Following this experience, regulatory agencies now ask for evaluation of immunomodulatory antibodies with a number of *in vitro* assays with human cells. While we have already evaluated JTX-2011 in these *in vitro* tests, we have only recently initiated our Phase I/II clinical trial of JTX-2011, and the risk profile in humans has yet to be assessed.

In another immunotherapy trial, liver toxicity was observed when *ipilimumab* and *vemurafinib* were given in combination, causing the trial to be terminated early. It remains possible that new or more severe toxicities could be

seen if JTX-2011 or JTX-4014 is used in combination with other agents. Such toxicities, if observed, could affect or limit labeling, result in delay or denial of approval, or limit the overall market scope for JTX-2011 or JTX-4014.

If unacceptable toxicities arise in the development of JTX-2011, JTX-4014 and any other future product candidates, we or a future collaborator could suspend or terminate our trials, or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials or deny approval of JTX-2011, JTX-4014 and any other future product candidates for any or all targeted indications. Treatment-related side effects could also affect patient recruitment or the ability of enrolled subjects to complete the trial, or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff, particularly outside of our existing or future collaborators as toxicities resulting from cancer immunotherapies are not normally encountered in the general patient population and by medical personnel. We expect to have to train medical personnel using JTX-2011 or JTX-4014 to understand the side effect profile of JTX-2011 or JTX-4014 for both our ongoing and planned clinical trials and upon commercialization of JTX-2011 or JTX-4014. Inadequate training in recognizing or managing the potential side effects of JTX-2011 or JTX-4104 could result in patient deaths. Any of these occurrences may prevent us from achieving or maintaining market acceptance of the affected product candidate and may harm our business, financial condition and prospects significantly.

Although JTX-2011, JTX-4014 and any other future product candidates will undergo safety testing to the extent possible and, where applicable, under such conditions discussed with regulatory authorities, not all adverse effects of drugs can be predicted or anticipated. Immunotherapy, and its method of action of harnessing the body's immune system, is powerful and could lead to serious side effects that we only discover in clinical trials. Unforeseen side effects from JTX-2011, JTX-4014 and any other future product candidates could arise either during clinical development or, if such side effects are more rare, after JTX-2011, JTX-4014 and any other future product candidates have been approved by regulatory authorities and the approved product has been marketed, resulting in the exposure of additional patients. Harnessing T cells to kill tumors is risky and may have unintended consequences. So far, we have not previously demonstrated that JTX-2011 or JTX-4014 are safe in humans, and we cannot predict if future clinical trials will do so. If JTX-2011, JTX-4014 or any other future product candidates we develop fail to demonstrate safety and efficacy in clinical trials or do not gain marketing approval, we will not be able to generate revenue and our business will be harmed.

We may seek a Breakthrough Therapy Designation by the FDA for JTX-2011, JTX-4014 and any other future product candidates, and we may be unsuccessful. If we are successful, the designation may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that JTX-2011, JTX-4014 and any other future product candidates will receive marketing approval.

We may seek a Breakthrough Therapy Designation for JTX-2011, JTX-4014 and any other future product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over currently approved therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA are also eligible for accelerated approval and priority review.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe JTX-2011, JTX-4014 and any other future product candidates meet the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if JTX-2011, JTX-4014 or any other future product candidates qualify as breakthrough therapies, the FDA may later decide that the drugs no longer meet the conditions for qualification and rescind the designation.

We may seek a Fast Track Designation by the FDA for JTX-2011, JTX-4014 or any other future product candidates, and we may be unsuccessful. If we are successful, the designation may not actually lead to a faster development or regulatory review or approval process.

We may seek Fast Track Designation for some of our product candidates, including JTX-2011 or JTX-4014. If a product is intended for the treatment of a serious or life-threatening condition and preclinical or clinical data demonstrate the potential to address an unmet medical need for this condition, the product sponsor may apply for

Fast Track Designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may rescind the Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program.

We may seek Orphan Drug Designation for JTX-2011, JTX-4014 and any other future product candidates, and we may be unsuccessful or may be unable to maintain the benefits associated with Orphan Drug Designation, including the potential for market exclusivity.

As part of our business strategy, we may seek Orphan Drug Designation for JTX-2011, JTX-4014 and any other future product candidates, and we may be unsuccessful. Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers.

Similarly, in Europe, the European Commission grants Orphan Drug Designation after receiving the opinion of the European Medicines Agency's, or EMA, Committee for Orphan Medicinal Products on an Orphan Drug Designation application. Orphan Drug Designation is intended to promote the development of drugs that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in Europe and for which no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected). Additionally, designation is granted for drugs intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in Europe would be sufficient to justify the necessary investment in developing the drug. In Europe, Orphan Drug Designation entitles a party to a number of incentives, such as protocol assistance and scientific advice specifically for designated orphan medicines, and potential fee reductions depending on the status of the sponsor.

Generally, if a drug with an Orphan Drug Designation subsequently receives the first marketing approval for the indication for which it has such designation, the drug is entitled to a period of marketing exclusivity, which precludes the EMA or the FDA from approving another marketing application for the same drug and indication for that time period, except in limited circumstances. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for Orphan Drug Designation or if the drug is sufficiently profitable such that market exclusivity is no longer justified.

Even if we obtain orphan drug exclusivity for a drug, that exclusivity may not effectively protect the drug from competition because different drugs can be approved for the same condition and the same drugs can be approved for different conditions but used off-label. Even after an orphan drug is approved, the FDA can subsequently approve the same drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. In addition, a designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Moreover, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition. Orphan Drug Designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process. While we may seek Orphan Drug Designation for applicable indications for JTX-2011, JTX-4014 and any other future product candidates, we may never receive such designations. Even if we do receive such designations, there is no guarantee that we will enjoy the benefits of those designations.

The marketing approval process is expensive, time consuming and uncertain and may prevent us or any of our existing or future collaboration partners from obtaining approvals for the commercialization of JTX-2011, JTX-4014 and any other future product candidates.

Among other things, the research, testing, manufacturing, labeling, approval and license maintenance, selling, import and export, marketing and distribution of biologic products are subject to extensive regulation by the FDA and comparable foreign regulatory authorities in other countries, where regulations differ from country to country.

Neither we nor any existing or future collaboration partner is permitted to market JTX-2011, JTX-4014 and any other future products in the United States until we receive approval of a BLA from the FDA. We have never submitted an application for, or received, marketing approval. Obtaining approval of a BLA can be a lengthy, expensive and uncertain process. In addition, failure to comply with FDA and other applicable U.S. and comparable foreign regulatory requirements may subject us to administrative or judicially imposed sanctions, including the following:

- untitled and warning letters;
- civil or criminal penalties and fines;
- injunctions;
- suspension or withdrawal of marketing approval;
- suspension of any ongoing clinical trials;
- product recalls;
- refusal to accept or approve BLAs or supplements thereto filed by us;
- restrictions on operations, including costly new manufacturing requirements; or
- seizure or detention of our products or import bans.

Prior to receiving approval to commercialize JTX-2011, JTX-4014 and any other products in the United States or abroad, we and any of our existing or future collaboration partners must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA and comparable foreign regulatory authorities, that such product candidates are safe and effective for their intended uses. Results from preclinical studies and clinical trials can be interpreted in different ways. Even if we and any of our existing or future collaboration partners believe the preclinical or clinical data for JTX-2011, JTX-4014 and any other future product candidates are promising, such data may not be sufficient to support approval by the FDA and comparable foreign regulatory authorities. Administering JTX-2011, JTX-4014 and any other future product candidates to humans may produce undesirable side effects, which could interrupt, delay or cause suspension of clinical trials of JTX-2011, JTX-4014 and any other future product candidates and result in the FDA or other regulatory authorities denying approval of JTX-2011, JTX-4014 and any other future product candidates for any or all targeted indications.

Marketing approval of a BLA is not guaranteed, and the approval process is expensive and may take several years. The FDA also has substantial discretion in the approval process. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that cause us to abandon or repeat clinical trials, or perform additional preclinical studies and clinical trials. The number of preclinical studies and clinical trials that will be required for FDA approval varies depending on the product candidate, the disease or condition that the product candidate is designed to address and the regulations applicable to any particular product candidate. The FDA can delay, limit or deny approval of a product candidate for many reasons, including, but not limited to, the following:

- a product candidate may not be deemed safe or effective;
- FDA officials may not find the data from preclinical studies and clinical trials sufficient;
- the FDA might not deem our or our third-party manufacturers' processes or facilities adequate for approval of our marketing applications; or
- the FDA may change its approval policies or adopt new regulations.

If JTX-2011, JTX-4014 and any other future product candidates fail to demonstrate safety and efficacy in clinical trials or do not gain marketing approval, our business will be harmed.

Even if we complete the necessary clinical trials, we cannot predict when or if we will obtain marketing approval to commercialize a product or the approval may be for a more narrow indication than we expect.

We cannot commercialize a product candidate until the appropriate regulatory authorities have reviewed and approved the product candidate. Even if JTX-2011, JTX-4014 or any of our other future product candidates demonstrate safety and efficacy in clinical trials, the regulatory agencies may not complete their review processes in a timely manner, or we may not be able to obtain marketing approval. Additional delays may result if an FDA Advisory Committee or other regulatory authority recommends non-approval or restrictions on approval. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory agency policy during the period of product development, clinical trials

and the review process. Regulatory agencies also may approve a product candidate for fewer or more limited indications than requested, in certain jurisdictions may not approve the price we intend to charge for JTX-2011, JTX-4014 or any other future products, may impose significant limitations in the form of narrow indications, warnings, precautions or contraindications with respect to conditions of use or may grant approval subject to the performance of costly post-marketing clinical trials. In addition, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of JTX-2011, JTX-4014 and any future products. Any of the foregoing scenarios could materially harm the commercial prospects for JTX-2011, JTX-4014 and any future products.

Obtaining and maintaining marketing approval of JTX-2011, JTX-4014 or any other future product candidates in one jurisdiction does not mean that we will be successful in obtaining marketing approval of that product candidate in other jurisdictions.

Obtaining and maintaining marketing approval of JTX-2011, JTX-4014 and any other future product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain marketing approval in any other jurisdiction, while a failure or delay in obtaining marketing approval in one jurisdiction may have a negative effect on the marketing approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials, as clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval.

Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to marketing in those jurisdictions. Obtaining foreign marketing approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of JTX-2011, JTX-4014 and any other future product candidates will be harmed. If we obtain approval of JTX-2011, JTX-4014 and any other future product candidates and ultimately commercialize JTX-2011, JTX-4014 and any other future product candidates in foreign markets, we would be subject to separate risks and uncertainties, including the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements and the reduced protection of intellectual property rights in some foreign countries.

Our failure to successfully identify, acquire, develop and commercialize additional products or product candidates could impair our ability to grow.

Although a substantial amount of our efforts will focus on the clinical testing and potential approval of our most advanced product candidate, JTX-2011, a key element of our long-term growth strategy is to acquire, develop and/or market additional products and product candidates. Research programs to identify product candidates require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development or commercialization for many reasons, including the following:

- our Translational Science Platform may not be successful in identifying additional product candidates;
- we may not be able or willing to assemble sufficient resources to acquire or discover additional product candidates;
- JTX-2011 may not succeed in clinical testing and JTX-4014 or any other future product candidates may not succeed in preclinical or clinical testing;
- a product candidate may on further study be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- competitors may develop alternatives that render JTX-2011, JTX-4014 and any other future product candidates obsolete or less attractive;
- product candidates we develop may nevertheless be covered by third-party patents or other exclusive rights;

- the market for a product candidate may change during our program so that the continued development of that product candidate is no longer reasonable;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by patients, the medical community, or third-party payors, if applicable.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, or we may not be able to identify, discover, develop or commercialize additional product candidates, which would have a material adverse effect on our business and could potentially cause us to cease operations.

Because our internal research capabilities are limited, we may be dependent upon pharmaceutical and biotechnology companies, academic scientists, and other researchers to sell or license products or technology to us. The success of this strategy depends partly upon our ability to identify, select, and acquire promising pharmaceutical product candidates and products. The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses, and technologies and integrate them into our current infrastructure.

Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. Any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and comparable foreign regulatory authorities. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot provide assurance that any products that we develop or approved products that we acquire will be manufactured profitably or achieve market acceptance.

If we fail to develop additional product candidates, our commercial opportunity will be limited.

We expect to initially develop our lead product candidate, JTX-2011. However, one of our strategies is to pursue clinical development of additional product candidates. Developing, obtaining marketing approval for, and commercializing additional product candidates will require substantial additional funding beyond our cash, cash equivalents and marketable securities and are prone to the risks of failure inherent in medical product development. We cannot assure you that we will be able to successfully advance any of these additional product candidates through the development process.

Even if we obtain FDA approval to market additional product candidates for the treatment of cancer, we cannot assure you that any such product candidates will be successfully commercialized, widely accepted in the marketplace, or more effective than other commercially available alternatives. If we are unable to successfully develop and commercialize additional product candidates, our commercial opportunity will be limited.

Even if we receive marketing approval of JTX-2011, JTX-4014 or any other future product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products, if approved.

Any marketing approvals that we receive for JTX-2011, JTX-4014 and any other future product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or the conditions of approval, or contain requirements for potentially costly post-market testing and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a risk evaluation and mitigation strategy, or REMS, as a condition of approval of JTX-2011, JTX-4014 and any other future product candidates, which could include requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves JTX-2011, JTX-4014 and any other future product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import and export and record keeping for JTX-2011, JTX-4014 and any other future product candidates will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current good manufacturing practice, or cGMP, and good clinical practice, or GCP, for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with JTX-2011, JTX-4014 and any other future product candidates, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of JTX-2011, JTX-4014 and any other future product candidates, withdrawal of the product from the market, or product recalls;
- fines, untitled and warning letters, or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications we filed or suspension or revocation of license approvals;
- product seizure or detention, or refusal to permit the import or export of JTX-2011, JTX-4014 and any other future product candidates; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay marketing approval of JTX-2011, JTX-4014 and any other future product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Even if JTX-2011, JTX-4014 and any other future product candidates receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.

If JTX-2011, JTX-4014 and any other future product candidates receive marketing approval, whether as a single agent or in combination with other therapies, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors, and others in the medical community. For example, currently approved immunotherapies, and other cancer treatments like chemotherapy and radiation therapy, are well established in the medical community, and doctors may continue to rely on these therapies. If JTX-2011, JTX-4014 and any other future product candidates do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of JTX-2011, JTX-4014 and any future products, if approved for commercial sale, will depend on a number of factors, including:

- efficacy and potential advantages compared to alternative treatments;
- the ability to offer our products, if approved, for sale at competitive prices;
- convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;

- the strength of marketing and distribution support;
- sufficient third-party coverage or reimbursement, including of combination therapies;
- adoption of a companion diagnostic and/or complementary diagnostic; and
- the prevalence and severity of any side effects.

Risks Related to Manufacturing, Commercialization and Reliance on Third Parties

We depend on our collaboration with Celgene and may depend on collaborations with additional third parties for the development and commercialization of our product candidates. If our collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

In July 2016, we entered into a Master Research and Collaboration Agreement, or Celgene Collaboration Agreement, with Celgene Corporation, or Celgene, focused on developing and commercializing biologic immunotherapies. Under our Celgene Collaboration Agreement with Celgene, Celgene may exercise options granting it certain commercialization or licensing rights for JTX-2011, JTX-4014 and other product candidate programs from a pool of certain molecular targets. The collaboration involves a complex allocation of rights, provides for milestone payments to us based on the achievement of specified clinical development, regulatory and commercial milestones, provides for additional payments upon Celgene's election to exercise rights to commercialize additional product candidates or extend the research term, and provides us with profit-sharing and royalty-based revenue if certain product candidates are successfully commercialized. We cannot provide any assurance with respect to, or otherwise, the success of the collaboration.

We may form or seek other strategic alliances, joint ventures, or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to JTX-2011, JTX-4014 and any future product candidates that we may develop. Our likely collaborators for any collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. If we enter into any other arrangements with any third parties, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates, which could be more limiting than our existing arrangements with Celgene. Our ability to generate revenues from these arrangements, including our arrangement with Celgene, will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates, including our collaboration with Celgene, pose the following risks to us:

- Collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations. For example, under our collaboration agreement with Celgene, development and commercialization plans and strategies for licensed programs will be conducted in accordance with a plan approved by the appropriate committee comprised of representatives from both us and Celgene.
- Collaborators, including Celgene, may not pursue development and commercialization of JTX-2011, JTX-4014 or any future product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus due to the acquisition of competitive products, availability of funding or other external factors such as a business combination that diverts resources or creates competing priorities.
- Collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing. For example, under our collaboration agreement with Celgene, at any point in the research, development and clinical trial process, or during the term of any applicable co-development and co-commercialization or license agreement, respectively, Celgene may terminate the applicable agreement upon 120 days' prior written notice with respect to any product candidate that is subject to the collaboration agreement without triggering a termination of the remainder of the collaboration and, under a co-development and co-commercialization agreement or a license agreement, it is possible for Celgene to terminate that agreement upon 120 days prior written notice at any point during the development or commercialization activities. If Celgene exercises any such termination right, we may not have sufficient resources to continue the research, development or commercialization of such product candidate.

- Collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates.
- A collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to their marketing and distribution.
- Collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to develop, commercialize, enforce, maintain or defend such intellectual property.
- Collaborators may not properly enforce, maintain or defend our intellectual property rights or may use our proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation, or other intellectual property proceedings. For example, under certain limited circumstances, Celgene has the first right to enforce, maintain or defend our intellectual property rights under our collaboration arrangement with respect to certain licensed programs and, although we may have the right to assume the enforcement, maintenance and defense of our intellectual property rights if Celgene does not, our ability to do so may be compromised by Celgene's actions.
- Disputes may arise between a collaborator and us that cause the delay or termination of the research, development or commercialization of JTX-2011, JTX-4014 and any other future product candidates, or that result in costly litigation or arbitration that diverts management attention and resources. For example, although we and Celgene have agreed to the form of co-development and co-commercialization agreement and license agreement to be entered into should Celgene exercise its option for a program under the Celgene Collaboration Agreement, we may never come to agreement with Celgene on a final definitive agreement. Further, even if we do reach a definitive agreement, it may not be on terms that are as favorable to us as expected.
- Collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates. For example, Celgene can terminate its agreement with us, in its entirety or with respect to any program, upon 120 days' notice and can terminate the entire agreement with us in connection with a material breach of the agreement by us that remains uncured for 90 days. If Celgene exercises such termination right, we may not have sufficient resources to continue the development of such product candidate.
- Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program under such collaboration could be delayed, diminished or terminated.
- Collaboration agreements may restrict our right to independently pursue new product candidates. For example, if Celgene exercises its option for a program within the collaboration other than JTX-4014, then until termination or expiration of the applicable co-development and co-commercialization agreement for such program, we may not directly or indirectly research, develop, manufacture or commercialize, outside of the collaboration, any biologic medicine or product candidate with specified activity against that program's collaboration target.

As a result, if we enter into additional collaboration agreements and strategic partnerships or license our intellectual property, products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, which could delay our timelines or otherwise adversely affect our business. We also cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. Any delays in entering into new collaborations or strategic partnership agreements related to JTX-2011, JTX-4014 and any other future product candidates could delay the development and commercialization of JTX-2011, JTX-4014 and any other future product candidates in certain geographies for certain indications, which would harm our business prospects, financial condition, and results of operations.

We may seek to establish additional collaborations, and, if we are not able to establish them on commercially reasonable terms, we may have to alter our development and commercialization plans.

Our drug development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with additional pharmaceutical and biotechnology companies for the development and potential commercialization

of those product candidates. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing stockholders, or disrupt our management and business.

We face significant competition in seeking appropriate strategic partners and the negotiation process is time consuming and complex. Whether we reach a definitive agreement for other collaborations will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the progress of our clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. Further, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for future product candidates because they may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view them as having the requisite potential to demonstrate safety and efficacy.

We may also be restricted under existing collaboration agreements from entering into future agreements on certain terms with potential collaborators. For example, during the research term of our collaboration with Celgene, we may not directly or indirectly research, develop, manufacture or commercialize, except pursuant to the agreement, certain product candidates. In addition, if Celgene exercises its option for a program within the collaboration other than JTX-4014, then until termination or expiration of the applicable co-development and co-commercialization agreement for such program, we may not directly or indirectly develop, manufacture or commercialize, outside of the collaboration, any biologic medicine or product candidate with specified activity against that program's collaboration target.

Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

The market opportunities for JTX-2011, JTX-4014 and any other products, if and when approved, may be limited to those patients who are ineligible for established therapies or for whom prior therapies have failed, and may be small.

Cancer therapies are sometimes characterized as first-line, second-line, or third-line, and the FDA often approves new therapies initially only for third-line use. When cancer is detected early enough, first-line therapy, usually chemotherapy, hormone therapy, surgery, radiation therapy or a combination of these, is sometimes adequate to cure the cancer or prolong life without a cure. Second and third-line therapies are administered to patients when prior therapy is not effective. We expect to initially seek approval of JTX-2011, JTX-4014 and any other future product candidates as a therapy for patients who have received one or more prior treatments. Subsequently, for those products that prove to be sufficiently beneficial, if any, we would expect to seek approval potentially as a first-line therapy, but there is no guarantee that JTX-2011, JTX-4014 and any other future product candidates, even if approved, would be approved for first-line therapy, and, prior to any such approvals, we may have to conduct additional clinical trials.

Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers who have received one or more prior treatments, and who have the potential to benefit from treatment with JTX-2011, JTX-4014 and any other future product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of

clinics, patient foundations, and market research, and may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these cancers. The number of patients may turn out to be lower than expected. Additionally, the potentially addressable patient population for JTX-2011, JTX-4014 and any other future product candidates may be limited or may not be amenable to treatment with JTX-2011, JTX-4014 and any other products, if and when approved. Even if we obtain significant market share for JTX-2011, JTX-4014 and any other products, if and when approved, because the potential target populations are small, we may never achieve profitability without obtaining marketing approval for additional indications, including to be used as first- or second-line therapy.

Exclusivity and other governance provisions within our collaboration agreement with Celgene may prevent us from pursuing alternative product candidates and exercising complete control over our product candidates' development.

During the research term in our collaboration agreement with Celgene, we may not alone, or with a third party, research, develop, manufacture or commercialize a biologic that binds to a pool of certain B cell, T regulatory cell or tumor-associated macrophage targets, other than PD-1, that meet certain criteria, termed an exclusive target, and inhibit, activate or otherwise modulate the activity of such exclusive target. In addition, if Celgene exercises its option for a program within the collaboration other than JTX-4014, then until termination or expiration of the applicable co-development and co-commercialization agreement for such program, we may not directly or indirectly research, develop, manufacture or commercialize, outside of the collaboration, any biologic with specified activity against that program's collaboration target. Further, our collaboration with Celgene is governed by the joint steering committee, or JSC, and a joint patent committee. The JSC may establish additional subcommittees, to oversee particular projects or activities. Subject to limitations specified in the agreement, if the applicable governance committee is unable to make a decision by consensus and the parties are unable to resolve the issue through escalation to specified senior executive officers of the parties, then we generally have final decision-making authority over research and development matters for programs prior to Celgene's exercise of its option to such program. If Celgene exercises its option for a program, final decision-making authority for that program is specified in the applicable co-development and co-commercialization agreement or license agreement. These exclusivity and governance provisions may inhibit our development efforts and may materially harm our business, financial condition, results of operations and prospects.

We rely and will rely on third parties to conduct our clinical trials for JTX-2011, JTX-4014 and any other future product candidates. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain marketing approval for or commercialize JTX-2011, JTX-4014 and any other future product candidates and our business could be substantially harmed.

We do not have the ability to independently conduct clinical trials. We rely and will rely on medical institutions, clinical investigators, contract laboratories, and other third parties, such as CROs, to conduct or otherwise support clinical trials for JTX-2011, JTX-4014 and any other future product candidates. We rely and will rely heavily on these parties for execution of clinical trials for JTX-2011, JTX-4014 and any other future product candidates and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal and regulatory requirements and scientific standards, and our reliance on these third parties including CROs will not relieve us of our regulatory responsibilities. For any violations of laws and regulations during the conduct of our clinical trials, we could be subject to untitled and warning letters or enforcement action that may include civil penalties up to and including criminal prosecution.

We and our clinical investigators and CROs are required to comply with regulations and requirements, including GCP, for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate, and that the trial patients are adequately informed of the potential risks of participating in clinical trials and their rights are protected. These regulations are enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for any drugs in clinical development. The FDA enforces GCP requirements through periodic inspections of clinical trial sponsors, principal investigators and trial sites. If we or our clinical investigators or CROs fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, the FDA will determine that any of our future clinical trials will comply with GCP. In addition, our clinical trials must be conducted with product candidates produced under cGMP regulations. Our failure or the failure of our clinical investigators or CROs to comply with these regulations may require us to repeat clinical trials, which would delay the marketing approval process and

could also subject us to enforcement action. We also are required to register certain ongoing clinical trials and provide certain information, including information relating to the trial's protocol, on a government-sponsored database, ClinicalTrials.gov, within specific timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Although we designed the clinical trials for JTX-2011 and intend to design the clinical trials for JTX-4014 and any other future product candidates, clinical investigators or CROs will conduct all of the clinical trials. As a result, many important aspects of our development programs, including their conduct and timing, will be outside of our direct control. Our reliance on third parties to conduct future clinical trials will also result in less direct control over the management of data developed through clinical trials than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

These factors may materially adversely affect the willingness or ability of third parties to conduct our clinical trials and may subject us to unexpected cost increases that are beyond our control. If the clinical investigators or CROs do not perform clinical trials in a satisfactory manner, breach their obligations to us or fail to comply with regulatory requirements, the development, marketing approval and commercialization of JTX-2011, JTX-4014 and any other future product candidates may be delayed, we may not be able to obtain marketing approval and commercialize JTX-2011, JTX-4014 and any other future product candidates, or our development program may be materially and irreversibly harmed. If we are unable to rely on clinical data collected by our clinical investigators and CROs, we could be required to repeat, extend the duration of, or increase the size of any clinical trials we conduct and this could significantly delay commercialization and require significantly greater expenditures.

If any of our relationships with these clinical investigators or third party CROs terminate, we may not be able to enter into arrangements with alternative clinical investigators or CROs. If clinical investigators or CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain are compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, any clinical trials such clinical investigators or CROs are associated with may be extended, delayed or terminated, and we may not be able to obtain marketing approval for or successfully commercialize JTX-2011, JTX-4014 and any other future product candidates. As a result, we believe that our financial results and the commercial prospects for JTX-2011, JTX-4014 and any other future product candidates in the subject indication would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We face significant competition and if our competitors develop and market products that are more effective, safer or less expensive than JTX-2011, JTX-4014 or any other future product candidates, our commercial opportunities will be negatively impacted.

The life sciences industry is highly competitive and subject to rapid and significant technological change. We are currently developing therapeutics that will compete with other products and therapies that currently exist or are being developed such as GlaxoSmithKline plc's anti-ICOS program. Products we may develop in the future are also likely to face competition from other products and therapies, some of which we may not currently be aware. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities and other research institutions. Many of our competitors have significantly greater financial, manufacturing, marketing, product development, technical and human resources than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining marketing approvals, recruiting patients and in manufacturing pharmaceutical products. These companies also have significantly greater research and marketing capabilities than we do and may also have products that have been approved or are in late stages of development, and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product candidates that we develop obsolete. As a result of all of these

factors, our competitors may succeed in obtaining patent protection and/or marketing approval or discovering, developing and commercializing products in our field before we do.

There are a large number of companies developing or marketing treatments for cancer, including many major pharmaceutical and biotechnology companies. These treatments consist both of small molecule drug products, as well as biologics approaches to address cancer. These treatments are often combined with one another in an attempt to maximize the response rate. Our competitors fall primarily into the following groups of treatment:

- traditional cancer therapies, including chemotherapy;
- approved immunotherapy antibodies, anti-CTLA 4 (Yervoy, marketed by Bristol Myers Squibb Company) and anti-PD-1/anti-PD-L1 antibodies (Opdivo, Keytruda and Tecentriq, marketed by Bristol Myers Squibb Company, Merck & Co., and Genentech, Inc., respectively);
- anti-PD-L1/anti-PD-L1 immunotherapy antibodies in clinical trials, including those being developed by Merck KGaA and Pfizer, Inc. (avelumab in Phase III), MedImmune, Inc. (durvalumab in Phase III), MedImmune, Inc. (MEDI0680 in Phase I), Incyte (SHR-1210 in Phase I), Bristol-Myers Squibb Company (BMS-936559 in Phase I), Regeneron Pharmaceuticals, Inc./Sanofi (REGN2810 in Phase I), Tesaro, Inc. (TSR-042 in Phase I), and Novartis AG (PDR-001 in Phase I/II);
- an anti-ICOS program (GSK 3359609) in Phase I clinical trials, being developed by GlaxoSmithKline plc for which patient enrollment began in the second quarter of 2016;
- other agonist immunotherapy antibodies in clinical development, including: anti-GITR antibodies being developed by Merck & Co., Inc. (MK-1248 and MK-4166 in Phase I), Leap Therapeutics, Inc. (TRX518 in Phase I), Bristol-Myers Squibb Company (BMS-986156 in Phase I), MedImmune, Inc. (MEDI1873 in Phase I), Amgen Inc. (AMG 228 in Phase I), Novartis AG (GWN323 in Phase I) and Agenus, Inc./Incyte Corporation (INCAGN01876 in Phase I); anti-CD137 antibodies being developed by Pfizer, Inc. (utomilumab in Phase I) and Bristol-Myers Squibb Company (urelumab in Phase II); anti-OX40 antibodies being developed by MedImmune, Inc. (MEDI6469 in Phase I), Pfizer (PF-04518600 in Phase I), Bristol-Myers Squibb Company (BMS-986178 in Phase I/II), Genentech, Inc. (MOXR0916 in Phase I) and GlaxoSmithKline plc (GSK 3174998 in Phase I); and an anti-CD27 antibody being developed by Celldex Therapeutics, Inc. (varlilumab in Phase I/II); and
- therapies targeting macrophages, including: antagonists of CSF1R being developed by Plexxikon Inc. (PLX3397 in Phase III) and anti-CSF1R antibody being developed by Five Prime Therapeutics, Inc. and Bristol-Myers Squibb Company (FPA008 in Phase I), Roche Holding AG (RO5509554 in Phase I), and Eli Lily & Co. (IMC-CS4 in Phase I); and an anti-M-CSF antibody being developed by Pfizer, Inc. (PD-0360324 in Phase I); antagonists of CD47 being developed by Forty Seven, Inc. (CAMELLIA in Phase I), Celgene (CC-90002 in Phase I), and Trillium Therapeutics, Inc. (TTI-621 in Phase I).

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient, have a broader label, are marketed more effectively, are reimbursed or are less expensive than any products that we may develop. Our competitors also may obtain FDA, European Commission or other marketing approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. Even if JTX-2011, JTX-4014 and any other future product candidates achieve marketing approval, they may be priced at a significant premium over competitive products if any have been approved by then, resulting in reduced competitiveness.

In addition, our ability to compete in the future may be affected in many cases by insurers or other third-party payors seeking to encourage the use of biosimilar products. In March 2010, then-President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the Affordable Care Act, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The Affordable Care Act also created a new regulatory scheme authorizing the FDA to approve biosimilars. Under the Affordable Care Act, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product," without the need to submit a full package of preclinical and clinical data. Under this new statutory scheme, an application for a biosimilar product may not be submitted to the FDA until four years following approval of the reference product. The FDA may not approve a biosimilar product until 12 years

from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product.

Smaller and other early stage companies may also prove to be significant competitors. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. In addition, the biopharmaceutical industry is characterized by rapid technological change. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.

We may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and personnel resources, we are placing significant focus on the development of our product candidates JTX-2011 and JTX-4014. As a result, we may forgo or delay pursuit of opportunities with other future product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and other future product candidates for specific indications may not yield any commercially viable future product candidates. If we do not accurately evaluate the commercial potential or target market for a particular future product candidate, we may relinquish valuable rights to that future product candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such future product candidates.

Because we rely on third-party manufacturing and supply partners, including a single supplier for some of our materials, our supply of research and development, preclinical and clinical development materials may become limited or interrupted or may not be of satisfactory quantity or quality.

We rely on third-party contract manufacturers to manufacture our preclinical and clinical trial product supplies. We do not own manufacturing facilities for producing such supplies. There can be no assurance that our preclinical and clinical development product supplies will not be limited, interrupted, or of satisfactory quality or continue to be available at acceptable prices. In particular, any replacement of our manufacturer could require significant effort and expertise because there may be a limited number of qualified replacements.

The manufacturing process for a product candidate is subject to FDA and comparable foreign regulatory authority review. Suppliers and manufacturers must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by regulatory authorities in order to comply with regulatory requirements, such as cGMP. In the event that any of our manufacturers fails to comply with such requirements or to perform its obligations to us in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to manufacture the materials ourselves, for which we currently do not have the capabilities or resources, or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. In some cases, the technical skills or technology required to manufacture JTX-2011, JTX-4014 or any other future product candidates may be unique or proprietary to the original manufacturer and we may have difficulty transferring such skills or technology to another third party and a feasible alternative may not exist. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to have another third party manufacture JTX-2011, JTX-4014 and any other future product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates in a timely manner or within budget.

We expect to continue to rely on third-party manufacturers if we receive marketing approval for any product candidate. To the extent that we have existing, or enter into future, manufacturing arrangements with third parties, we will depend on these third parties to perform their obligations in a timely manner consistent with contractual and regulatory requirements, including those related to quality control and assurance. If we are unable to maintain third-party manufacturing for JTX-2011, JTX-4014 or obtain or maintain third-party manufacturing for any other future product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize JTX-2011, JTX-4014 or any other future product candidates successfully. We do not yet have

sufficient information to reliably estimate the cost of the commercial manufacturing of JTX-2011, JTX-4014 or any other future product candidates, and the actual cost to manufacture JTX-2011, JTX-4014 or any other future product candidate could materially and adversely affect their commercial viability. As a result, we may never be able to develop a commercially viable product. Our or a third party's failure to execute on our manufacturing requirements, to do so on commercially reasonable terms and comply with cGMP could adversely affect our business in a number of ways, including:

- an inability to continue clinical trials of JTX-2011 or initiate or continue clinical trials of JTX-4014 or any other future product candidates under development;
- delay in submitting regulatory applications, or receiving marketing approvals, for JTX-2011, JTX-4014 or any other future product candidates;
- loss of the cooperation of an existing or future collaborator;
- subjecting third-party manufacturing facilities or our manufacturing facilities to additional inspections by regulatory authorities;
- requirements to cease distribution or to recall batches of JTX-2011, JTX-4014 and any other future product candidates; and
- in the event of approval to market and commercialize JTX-2011, JTX-4014 or any other future product candidates, an inability to meet commercial demands for our product or any other future product candidates.

Certain raw materials necessary for the manufacture of our JTX-2011, JTX-4014 product candidate under our current manufacturing process, such as growth media, resins and filters, are available from a single supplier. We do not have agreements in place that guarantee our supply or the price of these raw materials. Any significant delay in the acquisition or decrease in the availability of these raw materials could considerably delay the manufacture of JTX-2011, JTX-4014 and any other future product candidates, which could adversely impact the timing of any planned trials or the marketing approval of that product candidate.

Third-party manufacturers and any third-party collaborators may be unable to successfully scale-up manufacturing of JTX-2011, JTX-4014 or any other future product candidates in sufficient quality and quantity, which would delay or prevent us from developing JTX-2011, JTX-4014 or any other future product candidates and commercializing approved products, if any.

In order to conduct clinical trials of JTX-2011, JTX-4014 and any other future product candidates, we will need to work with third-party manufacturers to manufacture them in large quantities. Our manufacturing partners or our third-party collaborators may be unable to successfully increase the manufacturing capacity of JTX-2011, JTX-4014 and any other future product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If our manufacturing partners or collaborators are unable to successfully scale up the manufacture of JTX-2011, JTX-4014 or any other future product candidates in sufficient quality and quantity, the development, testing, and clinical trials of that product candidate may be delayed or infeasible, and marketing approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business.

We are subject to manufacturing risks that could substantially increase our costs and limit the supply of our products.

The process of manufacturing our product or any other future product candidates is complex, highly regulated and subject to several risks, including those listed below.

- We do not have experience manufacturing drug products or drug substances. We use third-party manufacturers for manufacturing JTX-2011 for our Phase I/II study of JTX-2011. We will also need commercial scale manufacturing of JTX-2011, if and when approved, which would involve scaling-up our process, for later trials and commercial application. We may not succeed in the scaling up of our process. We may need a larger scale manufacturing process for JTX-2011 than what we have planned, depending on the dose and regimen that will be determined in our Phase I/II study. Any changes in our manufacturing processes as a result of scaling-up may result in the need to obtain additional marketing approvals. Difficulties in achieving commercial-scale production or the need for additional marketing approvals as a result of scaling up could delay the development and marketing approval of JTX-2011, JTX-4014 and any other future product candidates and ultimately affect our success.

- The process of manufacturing biologics, such as JTX-2011, JTX-4014 and any other future product candidates, is extremely 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 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 JTX-2011, JTX-4014 and any other future product candidates or in the manufacturing facilities in which JTX-2011, JTX-4014 and any other future product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.
- The manufacturing facilities in which JTX-2011, JTX-4014 and any other future product candidates are made could be adversely affected by equipment failures, labor shortages, natural disasters, power failures and numerous other factors.
- Any adverse developments affecting manufacturing operations for JTX-2011, JTX-4014 and any other future product candidates, if any are approved, may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our products. We may also have to take inventory write-offs and incur other charges and expenses for products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives.
- JTX-2011, JTX-4014 and any other future product candidates that have been produced and are stored for later use may degrade, become contaminated or suffer other quality defects, which may cause the affected product candidates to no longer be suitable for their intended use in clinical trials or other development activities. If the defective product candidates cannot be replaced in a timely fashion, we may incur significant delays in our development programs that could adversely affect the value of such product candidates.

We expect to develop JTX-2011, JTX-4014 and potentially future product candidates in combination with other drugs. If we are unable to enter into a strategic collaboration for, or if we are unable to purchase on commercially reasonable terms, an approved cancer drug to use in combination with our product candidates, we may be unable to develop or obtain approval for, JTX-2011, JTX-4014 and potentially future product candidates in combination with other drugs.

We intend to develop JTX-2011, JTX-4014 and future product candidates in combination with one or more currently approved cancer drugs. If the FDA or similar regulatory authorities outside of the United States revoke approval of any drugs we use in combination with JTX-2011, JTX-4014 or any other future product candidates, we will not be able to market any products in combination with such revoked drugs. We may also evaluate JTX-2011, JTX-4014 or any other future product candidates in combination with one or more other cancer drugs that have not yet been approved for marketing by the FDA or similar regulatory authorities outside of the United States. We will not be able to market and sell JTX-2011, JTX-4014 or any other future product candidates in combination with any such unapproved cancer drugs that do not ultimately obtain marketing approval.

If safety or efficacy issues arise with any of these drugs, we could experience significant regulatory delays, and the FDA or similar regulatory authorities outside of the United States may require us to redesign or terminate the applicable clinical trials. If the drugs we use are replaced as the standard of care for the indications we choose for JTX-2011, JTX-4014 or any other future product candidates, the FDA or similar regulatory authorities outside of the United States may require us to conduct additional clinical trials. In addition, if manufacturing or other issues result in a shortage of supply of the drugs with which we determine to combine with JTX-2011, JTX-4014 or any other future product candidates, we may not be able to complete clinical development of JTX-2011, JTX-4014 or any other future product candidates on our current timeline or at all.

Even if JTX-2011, JTX-4014 or any other future product candidates were to receive marketing approval or be commercialized for use in combination with other existing drugs, we would continue to be subject to the risks that the FDA or similar regulatory authorities outside of the United States could revoke approval of the drug used in combination with JTX-2011, JTX-4014 or any other future product candidates or that safety, efficacy, manufacturing or supply issues could arise with these existing drugs. Combination therapies are commonly used for the treatment of cancer, and we would be subject to similar risks if we develop any of our other product candidates for use in combination with other drugs or for indications other than cancer. This could result in our own products being removed from the market or being less successful commercially.

If the FDA or similar regulatory authorities outside of the United States do not approve these other drugs or revoke their approval of, or if safety, efficacy, manufacturing, or supply issues arise with, the drugs we choose to evaluate

in combination with JTX-2011, JTX-4014 or any other future product candidates, we may be unable to obtain approval of or market JTX-2011, JTX-4014 or any other future product candidates.

We may form or seek strategic collaborations to evaluate and, if approved, market JTX-2011 and JTX-4014 in combination with another approved cancer drug. If we are unable to enter into a strategic collaboration on commercially reasonable terms or fail to realize the benefits of any such collaboration, we may be required to purchase an approved cancer drug to use in combination with JTX-2011 and JTX-4014. The failure to enter into a successful collaboration or the expense of purchasing an approved cancer drug may delay our development timelines, increase our costs and jeopardize our ability to develop JTX-2011 and JTX-4014 as a commercially viable drug.

We may develop complementary diagnostics and/or companion diagnostics for JTX-2011, JTX-4014 and any other product candidates we develop. If we are unable to successfully develop such companion diagnostics or complementary diagnostics, or experience significant delays in doing so, we may not realize the full commercial potential of JTX-2011, JTX-4014 or any other future product candidates.

Because we are focused on patient enrichment strategies, in which predictive biomarkers may be used to identify the right patients for our product candidates, we believe that our success may depend, in part, on our ability to develop complementary diagnostics and/or companion diagnostics, which are assays or tests to identify an appropriate patient population for our product candidates. There has been limited success to date industry-wide in developing these types of complementary diagnostics and/or companion diagnostics. To be successful, we need to address a number of scientific, technical and logistical challenges. We have not yet initiated development of complementary diagnostics and/or companion diagnostics. We have little experience in the development of diagnostics and may not be successful in developing appropriate diagnostics to pair with any of our product candidates that receive marketing approval. Complementary diagnostics and/or companion diagnostics are subject to regulation by the FDA and similar regulatory authorities outside the United States as medical devices and require separate regulatory approval or clearance prior to commercialization. Given our limited experience in developing diagnostics, we expect to rely in part or in whole on third parties for their design and manufacture. If we, or any third parties that we engage to assist us, are unable to successfully develop complementary diagnostics and/or companion diagnostics for JTX-2011, JTX-4014 and any other future product candidates, or experience delays in doing so:

- the development of JTX-2011, JTX-4014 and any other future product candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;
- JTX-2011, JTX-4014 and any other future product candidates may not receive marketing approval if safe and effective use of a product candidate depends on a complementary diagnostics and/or companion diagnostics and such diagnostic is not commercially available or otherwise approved or cleared by the appropriate regulatory authority; and
- we may not realize the full commercial potential of JTX-2011, JTX-4014 and any other future product candidates that receive marketing approval if, among other reasons, we are unable to appropriately identify, or it takes us longer to identify, patients who are likely to benefit from therapy with our products, if approved.

If any of these events were to occur, our business would be harmed, possibly materially.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of JTX-2011, JTX-4014 and any other future product candidates.

We face an inherent risk of product liability as a result of the clinical testing of JTX-2011, JTX-4014 and any other future product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if JTX-2011, JTX-4014 or any other future product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of JTX-2011, JTX-4014 or any other future product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for JTX-2011, JTX-4014 and any other future product candidates;
- injury to our reputation;

- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- the inability to commercialize any product candidate; and
- a decline in our share price.

Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop, alone or with corporate collaborators.

Insurance coverage is increasingly expensive. We may not be able to maintain insurance at a reasonable cost or in an amount adequate to satisfy any liability that may arise, if at all. Our insurance policy contains various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Even if we are able to commercialize any product candidates, such products may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies, which would harm our business.

The regulations that govern marketing approvals, pricing and reimbursement for new products vary widely from country to country. Some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product candidate in a particular country, but then be subject to price regulations that delay our commercial launch of the product candidate, possibly for lengthy time periods, and negatively impact the revenues we are able to generate from the sale of the product candidate in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if JTX-2011, JTX-4014 or any other future product candidates obtain marketing approval.

Our ability to commercialize any product candidates, whether as a single agent or combination therapy, successfully also will depend in part on the extent to which coverage and reimbursement for these product candidates and related treatments will be available from government authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular products. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for drugs. We cannot be sure that coverage will be available for any product candidate that we commercialize and, if coverage is available, the level of reimbursement. Reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels

for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment rates from both government-funded and private payors for any approved drugs that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize drugs and our overall financial condition.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In some countries, particularly the countries in Europe, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products, if approved, is unavailable or more limited in scope or amount than we anticipate, or if pricing is set at even lower levels than we anticipate, our business could be harmed, possibly materially.

Adverse events in the field of immuno-oncology could damage public perception of JTX-2011, JTX-4014 and any other future product candidates and negatively affect our business.

The commercial success of our products will depend in part on public acceptance of the use of cancer immunotherapies. Adverse events in clinical trials of JTX-2011, JTX-4014 or any other future product candidates or in clinical trials of others developing similar products and the resulting publicity, as well as any other adverse events in the field of immuno-oncology that may occur in the future, including in connection with competitor therapies such as GlaxoSmithKline plc's anti-ICOS antibody, could result in a decrease in demand for JTX-2011, JTX-4014 or any other products that we may develop. If public perception is influenced by claims that the use of cancer immunotherapies is unsafe, whether related to our therapies or those of our competitors, our products may not be accepted by the general public or the medical community.

Future adverse events in immuno-oncology or the biopharmaceutical industry could also result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approvals of our products. Any increased scrutiny could delay or increase the costs of obtaining marketing approval for JTX-2011, JTX-4014 and any other future product candidates.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Affordable Care Act was passed, which substantially changes the way health care is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry. The Affordable Care Act, among other things, subjects biological products to potential competition by lower-cost biosimilars, addresses a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increases the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extends the rebate program to individuals enrolled in Medicaid managed care organizations, establishes annual fees and taxes on manufacturers of certain branded prescription drugs, and creates a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect on

April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2025 unless additional congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, the Middle Class Tax Relief and Job Creation Act of 2012 required that the Centers for Medicare & Medicaid Services, or CMS, the agency responsible for administering the Medicare program, reduce the Medicare clinical laboratory fee schedule by 2% in 2013, which served as a base for 2014 and subsequent years. In addition, effective January 1, 2014, CMS also began bundling the Medicare payments for certain laboratory tests ordered while a patient received services in a hospital outpatient setting.

As a result of the 2016 election in the United States, there is great political uncertainty concerning the fate of the Affordable Care Act and other healthcare laws. The United States Congress is expected to draft legislation to repeal parts of the Affordable Care Act, but it is uncertain when such legislation would be passed and whether Congress would replace the law and what any replacement law would encompass. We cannot predict any initiatives that may be adopted in the future. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for JTX-2011, JTX-4014 and any other future product candidates or complementary diagnostics or companion diagnostics or additional pricing pressures.

Our future relationships with customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, which may constrain the business or financial arrangements and relationships through which we sell, market and distribute any products for which we obtain marketing approval. In addition, we may be subject to transparency laws and patient privacy regulation by the U.S. federal and state governments and by governments in foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws and regulations that may affect our ability to operate include:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, lease, order or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity can be found guilty of violating the statute without actual knowledge of the statute or specific intent to violate it. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act;
- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other third-party payors that are false or fraudulent or knowingly making a false statement to improperly avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity can be found guilty of violating these statutes without actual knowledge of the statutes or specific intent to violate them;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization;
- the federal legislation commonly referred to as the Physician Payments Sunshine Act, created under the Affordable Care Act, and its implementing regulations, which requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to CMS information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; state and foreign laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; state and foreign laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that some of our business activities could be subject to challenge under one or more of such laws. The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Responding to investigations can be time- and resource-consuming and can divert management's attention from the business. Additionally, as a result of these investigations, healthcare providers and entities may have to agree to additional onerous compliance and reporting requirements as part of a consent decree or corporate integrity agreement. Any such investigation or settlement could increase our costs or otherwise have an adverse effect on our business.

If our operations are found to be in violation of any of the laws described above or any other government regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in federal and state healthcare programs and the curtailment or restricting of our operations, any of which could harm our ability to operate our business and our financial results. In addition, the approval and commercialization of JTX-2011, JTX-4014 and any other future product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

Risks Related to our Financial Position and Need for Additional Capital

We have incurred net losses in every year since our inception and anticipate that we will continue to incur substantial and increasing net losses in the foreseeable future.

We are a clinical stage biopharmaceutical company with a limited operating history, and we are early on in our development efforts. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain marketing approval and become commercially viable. We have financed our operations primarily through the sale of equity securities, convertible debt securities and our collaboration with Celgene. Since our inception, most of our resources have been dedicated to the preclinical and clinical development of JTX-2011 and preclinical and planned clinical development of JTX-4014 and

other discovery programs. The size of our future net losses will depend, in part, on our future expenses and our ability to generate revenue, if any. We have no products approved for commercial sale and have not generated any revenue from product sales to date, and we continue to incur significant research and development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred losses in each period since our inception. For the years ended December 31, 2016, 2015 and 2014, we reported a net loss of $13.7 million, $28.5 million and $10.5 million, respectively. At December 31, 2016, we had an accumulated deficit of $73.2 million. We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek marketing approvals for, our product candidate and any additional product candidates we may develop.

Even if we succeed in receiving marketing approval for and commercialize our product candidate, we will continue to incur substantial research and development and other expenditures to develop and market additional potential products. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

We have never generated any revenue from product sales and our ability to generate revenue from product sales and become profitable depends significantly on our success on a number of factors.

We have no products approved for commercial sale, have not generated any revenue from product sales, and do not anticipate generating any revenue from product sales until some time after we have received marketing approval for the commercial sale of a product candidate, if ever. Our ability to generate revenue and achieve profitability depends significantly on our success in many factors, including:

- completing research regarding, and preclinical and clinical development of, our product candidate, JTX-4014 and any other programs and product candidates;
- obtaining marketing approvals for JTX-2011, JTX-4014 and any future product candidates for which we complete clinical studies;
- developing a sustainable and scalable manufacturing process for JTX-2011, JTX-4014 and any future product candidates, including establishing and maintaining commercially viable supply and manufacturing relationships with third parties;
- launching and commercializing JTX-2011, JTX-4014 and any other future product candidates for which we obtain marketing approvals, either directly or with a collaborator or distributor;
- obtaining market acceptance of JTX-2011, JTX-4014 and any future product candidates as viable treatment options;
- addressing any competing technological and market developments;
- identifying, assessing, acquiring and developing new product candidates;
- negotiating favorable terms in any collaboration, licensing, or other arrangements into which we may enter;
- obtaining, maintaining, protecting, and expanding our portfolio of intellectual property rights, including patents, trade secrets, and know-how; and
- attracting, hiring, and retaining qualified personnel.

Even if our product candidates or any future product candidates that we develop are approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. Our expenses could increase beyond expectations if we are required by the FDA or other regulatory agencies, domestic or foreign, to change our manufacturing processes or assays, or to perform clinical, nonclinical, or other types of studies in addition to those that we currently anticipate. If we are successful in obtaining marketing approvals to market JTX-2011, JTX-4014 or any other future product candidates, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain marketing approval, the accepted price for the product, the ability to get reimbursement at any price, and whether we own the commercial rights for that territory. If the number of our addressable disease patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect, or the reasonably accepted patient population for treatment is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved. If we are not able to generate revenue from the sale of any approved products, we may never become profitable.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

Our operations have consumed substantial amounts of cash since inception. At December 31, 2016, our cash, cash equivalents, and marketable securities were $257.4 million. We expect to continue to spend substantial amounts to continue the clinical development of JTX-2011 and preclinical and clinical development of JTX-4014 and any future product candidates. If we are able to gain marketing approval of JTX-2011, JTX-4014 and any other future product candidates, we will require significant additional amounts of cash in order to launch and commercialize JTX-2011, JTX-4014 and any other future product candidates to the extent that such launch and commercialization are not the responsibility of Celgene. In addition, other unanticipated costs may arise. Because the design and outcome of our planned and anticipated clinical trials are highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of JTX-2011, JTX-4014 and any other future product candidates. Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing JTX-2011, JTX-4014 and any other future product candidates, and conducting preclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining marketing approvals for JTX-2011, JTX-4014 and any other future product candidates if clinical trials are successful;
- the success of our collaboration with Celgene;
- whether Celgene exercises its licensing and co-development options under our collaboration agreement with Celgene, each of which would trigger additional payments to us;
- the cost of commercialization activities for JTX-2011, JTX-4014 and any other future product candidates, if JTX-2011, JTX-4014 or any other future product candidates are approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing JTX-2011, JTX-4014 and any other future product candidates for clinical trials in preparation for marketing approval and in preparation for commercialization;
- our ability to establish and maintain strategic licensing or other arrangements and the financial terms of such agreements;
- the costs involved in preparing, filing, prosecuting, maintaining, expanding, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;
- the timing, receipt, and amount of sales of, or royalties on, our future products, if any;
- the emergence of competing cancer therapies and other adverse market developments; and
- the requirement for and cost of developing complementary diagnostics and/or companion diagnostics.

We do not have any committed external source of funds or other support for our development efforts, other than our collaboration with Celgene, which is limited in scope and duration. We do not expect to receive any option exercise payments from Celgene until at least the first quarter of 2018, and we will not receive any milestone payments prior to Celgene exercising a licensing or co-development option. Until we can generate sufficient product and royalty revenue to finance our cash requirements, which we may never do, we expect to finance our future cash needs through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing or distribution arrangements. Based on our research and development plans, we expect that the net proceeds from our Initial Public Offering, or IPO, completed on February 1, 2017, together with our existing cash, cash equivalents, and marketable securities, will enable us to fund our operating expenses and capital expenditure requirements for at least twenty-four months.

If we raise additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish certain valuable rights to JTX-2011, JTX-4014 and any other future product candidates, technologies, future revenue streams or research programs or grant licenses on terms that may not be favorable to us. If we raise additional capital through public or private equity offerings, the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we are unable to obtain adequate financing on favorable terms when

needed, we may have to delay, reduce the scope of or suspend one or more of our clinical trials or research and development programs or our commercialization efforts.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or JTX-2011, JTX-4014 and any other future product candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of private and public equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. To the extent that we raise additional capital through the sale of common stock or securities convertible or exchangeable into common stock, your ownership interest will be diluted. Debt financing, if available, would increase our fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we are unable to raise additional funds through equity or debt financings when needed, we may be required to grant rights to develop and market JTX-2011, JTX-4014 and any other future product candidates that we would otherwise prefer to develop and market ourselves.

Risks Related to Intellectual Property

If we are unable to obtain, maintain and protect our intellectual property rights for JTX-2011, JTX-4014 and any other future product candidates or if our intellectual property rights are inadequate, our competitive position could be harmed.

Our commercial success will depend in part on our ability to obtain and maintain patent and other intellectual property protection in the United States and other countries with respect to JTX-2011, JTX-4014 and any other future product candidates. We rely on trade secret, patent, copyright and trademark laws, and confidentiality, licensing and other agreements with employees and third parties, all of which offer only limited protection. We currently, or will in the future, seek to protect our proprietary position by filing and prosecuting patent applications in the United States and abroad related to JTX-2011, JTX-4014, any other future product candidates, and any future novel technologies that are important to our business.

The patent positions of biotechnology and pharmaceutical companies generally are highly uncertain, involve complex legal and factual questions and have in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our licensed patents and any patents we own in the future are highly uncertain. The steps we or our licensors have taken to protect our proprietary rights may not be adequate to preclude misappropriation of our proprietary information or infringement of our intellectual property rights, both inside and outside of the United States.

Further, the examination process may require us or our licensors to narrow the claims for our pending patent applications, which may limit the scope of patent protection that may be obtained if these applications issue. The scope of a patent may also be reinterpreted after issuance. The rights already granted under any of our licensed patents and those that may be granted under our future issued patents may not provide us with the proprietary protection or competitive advantages we are seeking. If we or our licensors are unable to obtain and maintain patent protection for JTX-2011, JTX-4014 or any other future product candidates, or if the scope of the patent protection obtained is not sufficient, our competitors could develop and commercialize products similar or superior to ours, and our ability to successfully commercialize JTX-2011, JTX-4014 and any other future product candidates and future technologies may be adversely affected. It is also possible that we or our licensors fail to identify patentable aspects of inventions made in the course of our development and commercialization activities before it is too late to obtain patent protection on them.

In addition, the patent prosecution process is expensive, time-consuming and complex, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, collaborators, and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. It is also possible that we will fail to identify patentable aspects of our research and development efforts in time to obtain patent protection.

As of March 1, 2017, with respect to JTX-2011 patent rights, we own three pending U.S. provisional patent applications, one pending U.S. non-provisional application, five foreign patent applications, and two pending Patent Cooperation Treaty, or PCT, patent applications within two patent families that cover compositions of matter and

methods of use and ICOS-related biomarkers, and we do not own any issued patents. As of March 1, 2017 with respect to JTX-4014 patent rights, we own one pending U.S. provisional patent application that covers compositions of matter and methods of use, and we do not own any non-provisional applications or issued patents. These provisional patent applications are not eligible to become issued patents until, among other things, we file a non-provisional patent application within 12 months of filing of one or more of our related provisional patent applications. If we do not timely file any non-provisional patent applications, we may lose our priority date with respect to our provisional patent applications and any patent protection on the inventions disclosed in our provisional patent applications. While we intend to timely file non-provisional patent applications relating to our provisional patent applications, we cannot predict whether any of our future patent applications for JTX-2011, JTX-4014 or any other future product candidates will result in the issuance of patents that effectively protect JTX-2011, JTX-4014 and any other future product candidates, or if any of our issued patents or if any of our licensor's issued patents will effectively prevent others from commercializing competitive products. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing or in some cases not at all until they are issued as a patent. Therefore, we or our licensors cannot be certain that we were the first to make the inventions claimed in our licensed patents, patents we own in the future, or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

Our pending applications cannot be enforced against third parties practicing the inventions claimed in such applications unless and until a patent issues from such applications. Because the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, issued patents that we license from third parties or own in the future may be challenged in the courts or patent offices in the United States and abroad, including through opposition proceedings, derivation proceedings, *inter partes* review, *ex parte* reexam, post grant review, interference proceedings or litigation. Such proceedings may result in the loss of patent protection, the narrowing of claims in such patents or the invalidity or unenforceability of such patents, which could limit our ability to stop others from using or commercializing similar or identical products, or limit the duration of the patent protection for JTX-2011, JTX-4014 and any other future product candidates. Protecting against the unauthorized use of our or our licensor's patented inventions, trademarks and other intellectual property rights is expensive, time consuming, difficult and in some cases may not be possible. In some cases, it may be difficult or impossible to detect third-party infringement or misappropriation of our intellectual property rights, even in relation to issued patent claims, and proving any such infringement may be even more difficult. If we are unable to obtain, maintain, and protect our intellectual property our competitive advantage could be harmed, and it could result in a material adverse effect on our business, financial condition, and the results of operations and prospects.

If we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected.

In addition to seeking patent protection, we also rely on other proprietary rights, including protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of our trade secrets and proprietary information, we enter into confidentiality agreements with our employees, consultants, collaborators and other third parties who have access to our trade secrets. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees also provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and individuals with whom we have these agreements may not comply with their terms. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. In addition, in the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions.

Adequate remedies may not exist in the event of unauthorized use or disclosure of our confidential information including a breach of our confidentiality agreements. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time consuming, and the outcome is unpredictable. In addition, some courts in and outside of the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us. The disclosure of

our trade secrets or the independent development of our trade secrets by a competitor or other third party would impair our competitive position and may materially harm our business, financial condition, results of operations and prospects.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could harm our business.

Our commercial success depends on our ability and the ability of our current or future collaborators to develop, manufacture, market and sell JTX-2011, JTX-4014 and any other future product candidates, and to use our related proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. The biotechnology and pharmaceutical industries are characterized by extensive litigation regarding patents and other intellectual property rights. We may become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our current and any other future product candidates, including interference, proceedings, post-grant review, *inter partes* review, *ex parte* reexam and derivation proceedings before the U.S. Patent and Trademark Office, or USPTO. Third parties may assert infringement or other intellectual property claims against us based on existing patents or patents that may be granted in the future. For example, we are aware of third party patents generally directed to methods of treating certain indications with an anti-PD-1 monoclonal antibody that may be construed to cover one or more of our current and future product candidates. If we are found to infringe a third-party's intellectual property rights, and we are unsuccessful in demonstrating that such intellectual property rights are invalid or unenforceable, we could be required to obtain a license from such third party to continue developing, manufacturing and commercializing JTX-2011, JTX-4014 and any other future product candidates. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments. We also could be forced, including by court order, to cease developing, manufacturing, and commercializing JTX-2011, JTX-4014 or any other future product candidates. In addition, in any such proceeding or litigation, we could be found liable for significant monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects. Any claims by third parties that we have misappropriated their confidential information or trade secrets could have a similar material adverse effect on our business.

In addition, we are testing JTX-2011, JTX-4014 and other future product candidates with other products that are covered by patents held by other companies or institutions. In the event that a labeling instruction is required in product packaging recommending that combination, we could be accused of, or held liable for, infringement of the third-party patents covering the product candidate or product recommended for administration with JTX-2011, JTX-4014 and any other future product candidates. In such a case, we could be required to obtain a license from the other company or institution to use the required or desired package labeling, which may not be available on commercially reasonable terms, or at all.

If we breach any of our license agreements or collaboration agreements, it could have a material adverse effect on our commercialization efforts for JTX-2011, JTX-4014 and any other future product candidates.

Our commercial success depends on our ability, and at times, the ability of our licensors and current or future collaborators to develop, manufacture, market, and sell JTX-2011, JTX-4014 and any other future product candidates, and use our licensors proprietary technologies without infringing the property rights of third parties. For example, we have entered into our Celgene Collaboration Agreement relating to JTX-2011, JTX-4014 and other product candidates, and an exclusive license agreement with Sloan Kettering Institute for Cancer Research, Memorial Sloan Kettering Cancer Center and Memorial Hospital for Cancer, or MSK, and The University of Texas MD Anderson Cancer Center, or UTMDACC, related to certain uses of our JTX-2011, and we may enter into additional licenses in the future. These and other licenses may not provide exclusive rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our products in the future. As a result, we may not be able to prevent competitors from developing and commercializing competitive products in territories included in all our licenses.

In addition, we may not have the right to control the preparation, filing, prosecution, maintenance, enforcement and defense of patents and patent applications covering the technology that we license from third parties. For example, under our Celgene Collaboration Agreement, under certain circumstances, Celgene has the first right to enforce, maintain or defend our intellectual property rights with respect to certain licensed programs. Therefore, we cannot be certain that these patents and patent applications will be prepared, filed, prosecuted, maintained, enforced, and defended in a manner consistent with the best interests of our business. If our licensors fail to prosecute, maintain,

enforce and defend such patents, or lose rights to those patents or patent applications, the rights we have licensed may be reduced or eliminated and our right to develop and commercialize JTX-2011, JTX-4014 and any other future product candidates that are the subject of such licensed rights could be adversely affected. Furthermore, our owned and in-licensed patents may be subject to a reservation of rights by one or more third parties.

Certain of our license agreements also require us to meet development thresholds to maintain the license, including establishing a set timeline for developing and commercializing products. If we fail to comply with the obligations under our license agreements, including payment terms and diligence terms, our licensors may have the right to terminate our agreements, in which event we may not be able to develop, manufacture, market or sell the products covered by our agreements or may face other penalties under our agreements. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of our license agreements or reduction or elimination of our rights under them may result in our having to negotiate a new or reinstated agreement, which may not be available to us on equally favorable terms, or at all, which may mean we are unable to develop or commercialize the affected product candidate or cause us to lose our rights under this agreement, including our rights to intellectual property or technology important to our development programs. In addition, disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under future collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates, which could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Further, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may not be successful in obtaining necessary rights to JTX-2011, JTX-4014 and any other future product candidates we may develop, or obtain through acquisitions and in-licenses.

We currently have rights to intellectual property, through licenses from third parties, for certain uses of JTX-2011. Because JTX-2011, JTX-4014 and any other future product candidates may require the use of proprietary rights held by third parties, the growth of our business likely will depend, in part, on our ability to acquire, in-license or use these proprietary rights. We may be unable to acquire or in-license any compositions, methods of use, processes or other intellectual property rights from third parties that we identify as necessary for JTX-2011, JTX-4014 and other future product candidates. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development or commercialization of the relevant program or product candidate or may be required to expend significant time and resources to redesign our technology, JTX-2011, JTX-4014, or other future product candidates or method for manufacturing them, all of which

may not be feasible on a technical or commercial basis. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time, and JTX-2011, JTX-4014 and any other future product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. We expect to seek patent term adjustments or extensions of patent terms in the United States for our licensed patents and any patents we own in the future and, if available, in other countries where that may be available when we are prosecuting patents. In the United States, the Drug Price Competition and Patent Term Restoration Act of 1984 permits a patent term extension of up to five years beyond the normal expiration of the patent, which is limited to the approved indication (or any additional indications approved during the period of extension). However, the applicable authorities, including the FDA and the USPTO in the United States, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or may grant more limited extensions than we request. We may not be granted an extension because of, for example, failure to exercise due diligence during the testing phase or regulatory review process, failure to apply within applicable deadlines, failure to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. If we are unable to obtain patent term extension or the term of any such extension is less than we request, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case, which could result in a material adverse effect on our business, financial condition, results of operation and prospects.

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, established legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

We intend to seek market exclusivity for our biological product candidate that is subject to its own BLA for 12 years in the United States, 10 years in Europe and other durations in other markets. However, the term of the patents that cover such product candidates may not extend beyond the applicable market exclusivity awarded by a particular country. For example, in the United States, if all of the patents that cover our particular biologic product expire before the 12-year market exclusivity expires, a third party could submit a marketing application for a biosimilar product four years after approval of our biologic product, and the FDA could immediately review the application and approve the biosimilar product for marketing 12 years after approval of our biologic. Alternatively, a third party could submit a BLA for a similar or identical product any time after approval of our biologic product, and the FDA could immediately review and approve the similar or identical product for marketing and the third party could begin marketing the similar or identical product upon expiry of all of the patents that cover our particular biologic product.

Additionally, there is a risk that this exclusivity could be shortened due to congressional action, potentially creating the opportunity for biosimilar competition sooner than anticipated. The extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Filing, prosecuting and defending patents on JTX-2011, JTX-4014 and all other future product candidates throughout the world would be prohibitively expensive, and our or our licensors' intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws and practices of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we and our licensors may not be able to prevent third parties from practicing our and our licensors' inventions in all countries outside the United States, or from selling or importing products made using our and our licensors' inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop

their own products, and may export otherwise infringing products to territories where we or our licensors have patent protection but where enforcement is not as strong as that in the United States. These products may compete with our products in jurisdictions where we do not have any issued patents and our patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us to stop the infringement of our or our licensor's patents or marketing of competing products in violation of our intellectual property and proprietary rights generally in those countries. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business, could put our and our licensors' patents at risk of being invalidated or interpreted narrowly and our and our licensors' patent applications at risk of not issuing and could provoke third parties to assert claims against us or our licensors. We or our licensors may not prevail in any lawsuits that we or our licensors initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property we develop or license.

In addition, the laws of certain foreign countries may not protect our rights to the same extent as the laws of the United States, and those foreign laws may also be subject to change. For example, methods of treatment and manufacturing processes may not be patentable in certain jurisdictions, and the requirements for patentability may differ in certain countries. Furthermore, generic and/or biosimilar product manufacturers or other competitors may challenge the scope, validity and enforceability of our or our licensors' patents, requiring us or our licensors to engage in complex, lengthy and costly litigation or proceedings.

Moreover, many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. Many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired and our business and results of operations may be adversely affected.

Generic or biosimilar product manufacturers may develop, seek approval for, and launch biosimilar versions or generic versions, respectively, of our products. The FDA has published draft guidance documents on biosimilar product development. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product and, for products administered multiple times, the biosimilar and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. If JTX-2011, JTX-4014 and any other future product candidates are approved by the FDA, the approval of a biosimilar product to one of our products could have a material impact on our business. In particular, a biosimilar product could be significantly less costly to bring to market and priced significantly lower than our products, if approved by the FDA. See "Business—U.S. Patent Term Restoration and Marketing Exclusivity" for a more detailed description of the BPCIA.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payments and other similar provisions during the patent application process and to maintain patents after they are issued. For example, periodic maintenance fees, renewal fees, annuity fees and various other government fees on issued patents and patent applications often must be paid to the USPTO and foreign patent agencies over the lifetime of our licensed patents or any patents we own in the future. In certain circumstances, we rely on our licensing partners to take the necessary action to comply with these requirements with respect to our licensed intellectual property. While an unintentional lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to obtain and maintain the patents and patent applications covering our products or procedures, we may not be able to stop a competitor from marketing products that are the same as or similar to JTX-2011, JTX-4014 and any other future product candidates, which would have a material adverse effect on our business.

Changes to the patent law in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect JTX-2011, JTX-4014 and any other future product candidates.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs. Recent patent reform legislation in the United States and other countries, including the Leahy-Smith America Invents Act, or the Leahy-Smith Act, signed into law on September 16, 2011, could increase those uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art and provide more efficient and cost-effective avenues for competitors to challenge the validity of patents. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, *ex parte* reexam, and derivation proceedings. After March 2013, under the Leahy-Smith Act, the United States transitioned to a first inventor to file system in which, assuming that the other statutory requirements are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. Depending on future actions by the U.S. Congress, the U.S. courts, the USPTO and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time-consuming and unsuccessful and have a material adverse effect on the success of our business.

Competitors may infringe our licensed patents or any patent we own in the future or misappropriate or otherwise violate our intellectual property rights. We may also be required to defend against claims of infringement and our licensed patents and any patents we own in the future may become involved in priority or other intellectual property related disputes. To counter infringement or unauthorized use, litigation may be necessary in the future to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the validity and scope of our own intellectual property rights or the proprietary rights of others. Also, third parties may initiate legal proceedings

against us or our licensors to assert that we are infringing their intellectual property rights or to challenge the validity or scope of our owned or licensed intellectual property rights. These proceedings can be expensive and time consuming. Many of our current and potential competitors have the ability to dedicate substantially greater resources to conduct intellectual property related litigations or proceedings than we can. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property. Litigation and other intellectual property related proceedings could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by or licensed to us is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or other intellectual property related proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments in any such proceedings. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of shares of our common stock. Any of the foregoing may have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to claims by third parties asserting that our collaborators, licensors, employees or we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees, our collaborators' employees and our licensors' employees, including our senior management, are currently or previously were employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Some of these employees, including each member of our senior management, executed proprietary rights, non-disclosure and non-competition agreements, or similar agreements, in connection with such previous employment. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel or sustain damages. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products. Such a license may not be available on commercially reasonable terms, or at all. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management. Any of the foregoing may have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed confidential information of third parties or are in breach of non-competition or non-solicitation agreements with our competitors.

We could in the future be subject to claims that we or our employees have inadvertently or otherwise used or disclosed alleged trade secrets or other confidential information of former employers or competitors. Although we try to ensure that our employees and consultants do not use the intellectual property, proprietary information, know-how or trade secrets of others in their work for us, we may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement, or that we or these individuals have, inadvertently or otherwise, used or disclosed the alleged trade secrets or other proprietary information of a former employer or competitor. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. If our defenses to these claims fail, in addition to requiring us to pay monetary damages, a court could prohibit us from using technologies or features that are essential to JTX-2011, JTX-4014 and any other future product candidates, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. An inability to incorporate such technologies or features would have a material adverse effect on our business, and may prevent us from successfully commercializing JTX-2011, JTX-4014 and any other future product candidates. In addition, we may lose valuable intellectual property rights or personnel as a result of such claims. Moreover, any such litigation or the

threat thereof may adversely affect our ability to hire employees or consultants. A loss of key personnel or their work product could hamper or prevent our ability to develop and commercialize JTX-2011, JTX-4014 and any other future product candidates, which would have an adverse effect on our business, results of operations and financial condition.

Issued patents covering JTX-2011, JTX-4014 and any other future product candidates could be found invalid or unenforceable if challenged in court or before the USPTO or comparable foreign authority.

If we or one of our licensing partners initiate legal proceedings against a third party to enforce a patent covering one of JTX-2011, JTX-4014 or any other future product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be, among other things, an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, or non-enablement. Grounds for an unenforceability assertion could be, among other things, an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include *inter partes* review, *ex parte* reexam, post-grant review, interference proceedings, derivation proceedings and equivalent proceedings in foreign jurisdictions, such as opposition proceedings. Such proceedings could result in revocation, cancellation or amendment to our patents in such a way that they no longer cover and protect JTX-2011, JTX-4014 and any other future product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. For example, with respect to the validity of our licensed patents or any patents we obtain in the future, we cannot be certain that there is no invalidating prior art of which we, our or our licensing partner's patent counsel, and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on JTX-2011, JTX-4014 and any other future product candidates. Such a loss of patent protection could have a material adverse impact on our business.

Risks Related to Employee Matters, Managing our Growth and Other Risks Related to our Business

We currently have no marketing and sales organization and have no experience in marketing products. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell JTX-2011, JTX-4014 and any other future product candidates, we may not be able to generate product revenue.

We currently have no sales, marketing, or distribution capabilities and have no experience in marketing products. If JTX-2011, JTX-4014 or any of our future product candidates receive appropriate regulatory approval, we intend to develop an in-house marketing organization and sales force, which will require significant capital expenditures, management resources and time. We will have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train and retain marketing and sales personnel.

If we are unable or decide not to establish internal sales, marketing and distribution capabilities, we will pursue collaborative arrangements regarding the sales and marketing of our products; however, we cannot assure you that we will be able to establish or maintain such collaborative arrangements, or if we are able to do so, that they will have effective sales forces. Any revenue we receive will depend upon the efforts of such third parties, which may not be successful. We may have little or no control over the marketing and sales efforts of such third parties and our revenue from product sales may be lower than if we had commercialized JTX-2011, JTX-4014 and any other future product candidates ourselves. We also face competition in our search for third parties to assist us with the sales and marketing efforts of JTX-2011, JTX-4014 and any other future product candidates.

We cannot assure you that we will be able to develop in-house sales and distribution capabilities or establish or maintain relationships with third-party collaborators to commercialize any product in the United States or elsewhere.

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

At December 31, 2016, we had 85 full-time employees, including 61 employees engaged in research and development. As our development and commercialization plans and strategies develop, and as we transition into operating as a public company, we expect to need additional managerial, operational, sales, marketing, financial

and other personnel. Future growth would impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, including the clinical and FDA review process for JTX-2011, JTX-4014 and any other future product candidates, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to commercialize JTX-2011, JTX-4014 and any other future product candidates will depend, in part, on our ability to effectively manage any future growth, and our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

We currently rely, and for the foreseeable future will continue to rely, in substantial part on certain independent organizations, advisors and consultants to provide certain services, including substantially all aspects of marketing approval, clinical management, and manufacturing. We cannot assure you that the services of independent organizations, advisors and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified replacements. In addition, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain marketing approval of JTX-2011, JTX-4014 and any other future product candidates or otherwise advance our business. We cannot assure you that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, or at all.

If we are not able to effectively expand our organization by hiring new employees and expanding our groups of consultants and contractors, we may not be able to successfully implement the tasks necessary to further develop and commercialize JTX-2011, JTX-4014 and any other future product candidates and, accordingly, may not achieve our research, development and commercialization goals.

We are highly dependent on our key personnel, and if we are not successful in attracting, motivating and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon our ability to attract, motivate and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on our management, particularly our chief executive officer, Richard Murray, and our scientific and medical personnel. The loss of the services of any of our executive officers, key employees, and scientific and medical advisors, and our inability to find suitable replacements, could result in delays in product development and harm our business.

We conduct our operations at our facility in Cambridge, Massachusetts, in a region that is home to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel is intense and the turnover rate can be high, which may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. We expect that we will need to recruit talent from outside of our region, and doing so may be costly and difficult.

To induce valuable employees to remain at our Company, in addition to salary and cash incentives, we have provided restricted stock and stock option grants that vest over time. The value to employees of these equity grants that vest over time may be significantly affected by movements in our stock price that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. Although we have employment agreements with our key employees, these employment agreements provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. We do not maintain "key man" insurance policies on the lives of all of these individuals or the lives of any of our other employees.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and

radioactive materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

Our internal computer systems, or those used by our CROs or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems and those of our future CROs and other contractors and consultants are vulnerable to damage from computer viruses and unauthorized access. While we have not to our knowledge experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our marketing approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we rely on third parties for the manufacture of JTX-2011, JTX-4014 and any other future product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of JTX-2011, JTX-4014 and any other future product candidates could be delayed.

We, or the third parties upon whom we depend, may be adversely affected by earthquakes or other natural disasters and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Earthquakes or other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as the manufacturing facilities of our third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which, could have a material adverse effect on our business.

Our employees, independent contractors, vendors, principal investigators, CROs and consultants may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk that our employees, independent contractors, vendors, principal investigators, CROs and consultants may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violate the regulations of the FDA and comparable foreign regulatory authorities, including those laws requiring the reporting of true, complete and accurate information to such authorities; healthcare fraud and abuse laws and regulations in the United States and abroad; or laws that require the reporting of financial information or data accurately. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws also involve the improper use of information obtained in the course of clinical trials or creating fraudulent data in our preclinical studies or clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of conduct applicable to all of our employees, but it is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us

from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

If we engage in future acquisitions or strategic partnerships, this may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We have entered into a collaboration agreement with Celgene, and may evaluate various acquisitions and additional strategic partnerships, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Our relationship with Celgene and any potential acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of additional indebtedness or contingent liabilities;
- the issuance of our equity securities;
- assimilation of operations, intellectual property and products of an acquired company, including difficulties associated with integrating new personnel;
- the diversion of our management's attention from our existing product programs and initiatives in pursuing such a strategic merger or acquisition;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and marketing approvals; and
- our inability to generate revenue from acquired technology and/or products sufficient to meet our objectives in undertaking the acquisition or even to offset the associated acquisition and maintenance costs.

In addition, if we undertake acquisitions, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business.

Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.

As widely reported, global credit and financial markets have experienced extreme volatility and disruptions in the past several years, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. We cannot assure you that deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, or do not improve, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive these difficult economic times, which could directly affect our ability to attain our operating goals on schedule and on budget.

At December 31, 2016, we had $257.4 million of cash, cash equivalents, and marketable securities. While we are not aware of any downgrades, material losses, or other significant deterioration in the fair value of our cash equivalents or marketable securities since December 31, 2016, we cannot assure you that deterioration of the global credit and financial markets would not negatively impact our current portfolio of cash equivalents or

marketable securities, or our ability to meet our financing objectives. Furthermore, our stock price may decline due, in part, to the volatility of the stock market and the general economic downturn.

Risks Related to our Common Stock

Our ability to utilize our net operating loss carryforwards and certain other tax attributes has been limited by "ownership changes" and may be further limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in the ownership of its equity over a three-year period), the corporation's ability to use its pre-change net operating loss carryforwards and certain other pre-change tax attributes to offset its post-change income may be limited. A Code Section 382 study, completed in August 2016, identified three previous ownership changes for purposes of Code Section 382. As a result of these ownership changes, our net operating loss and tax credit carryforwards allocable to the periods preceding each such ownership change are subject to limitations under Code Section 382. We may experience ownership changes in the future as a result subsequent shifts in our stock ownership, some of which are outside our control. As of December 31, 2016, we had federal net operating loss carryforwards of approximately $62.4 million, and our ability to utilize our net operating loss carryforwards is limited by our previous ownership changes and the rest may become subject to limitations by "ownership changes" in the future, which could result in increased tax liability to us.

The price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our common stock.

Our stock price is likely to be volatile. The stock market in general and the market for biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the IPO price. The market price for our common stock may be influenced by many factors, including:

- the success of competitive products or technologies;
- results of clinical trials of JTX-2011, JTX-4014 and any other future product candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to JTX-2011, JTX-4014 and any other future product candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license additional product candidates or drugs;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this "Risk factors" section.

An active trading market for our common stock may not be sustained.

Our shares of common stock began trading on the NASDAQ Global Select Market on January 27, 2017. Given the limited trading history of our common stock, there is a risk that an active trading market for our shares will not be sustained, which could put downward pressure on the market price of our common stock and thereby affect the ability of our stockholders to sell their shares.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because pharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

We are an emerging growth company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements, that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years following the year in which we completed our IPO, although circumstances could cause us to lose that status earlier. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of the offering, (b) in which we have total annual gross revenue of at least $1.0 billion or (c) in which we are deemed to be a large accelerated filer, which requires the market value of our common stock that is held by non-affiliates to exceed $700.0 million as of the prior June 30th, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, are subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, changes in rules of U.S. generally accepted accounting principles or their interpretation, the adoption of new guidance or the application of existing guidance to changes in our business could significantly affect our financial position and results of operations.

In this Annual Report, we have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive for relying on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Our executive officers, directors, principal stockholders and their affiliates will continue to exercise significant influence over our Company, which will limit your ability to influence corporate matters and could delay or prevent a change in corporate control.

As of December 31, 2016, our executive officers, directors, principal stockholders and their affiliates, including investment funds affiliated with Third Rock Ventures and entities affiliated with Fidelity and Celgene represented beneficial ownership, in the aggregate, of approximately 63.3% of our outstanding common stock. As a result, these stockholders, if they act together, will be able to influence our management and affairs and the outcome of matters submitted to our stockholders for approval, including the election of directors and any sale, merger, consolidation, or

sale of all or substantially all of our assets. In addition, this concentration of ownership might adversely affect the market price of our common stock by:

- delaying, deferring or preventing a change of control of us;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquiror from making a tender offer or otherwise attempting to obtain control of us.

See "*ITEM 12. Security Ownership of Certain of Beneficial Owners and Management and Related Stockholder Matters*" in this Form 10-K for more information regarding the ownership of our outstanding common stock by our executive officers, directors, principal stockholders and their affiliates.

We are incurring and will continue to incur significantly increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, we are incurring and will continue to incur significant legal, accounting and other expenses that we did not incur as a private company. We are subject to the reporting requirements of the Securities Exchange Act of 1934, which will require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and NASDAQ to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation-related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Recent legislation permits emerging growth companies to implement many of these requirements over a longer period and up to five years from the pricing of our IPO. We intend to take advantage of this new legislation, but cannot guarantee that we will not be required to implement these requirements sooner than budgeted or planned and thereby incur unexpected expenses. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. We expect that we will need to hire additional accounting, finance and other personnel in connection with our efforts to comply with the requirements of being a public company, and our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements. These requirements will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this Annual Report lapse, or if the market anticipates that these sales could occur, the market price of our common stock could decline. These sales may make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate, or to use equity as consideration for future acquisition.

The lock-up agreements pertaining to our IPO will expire July 26, 2017. After the lock-up agreements expire, based upon the number of shares of common stock, on an as-converted basis, outstanding as of December 31, 2016, up to an additional 24,702,143 shares of common stock will be eligible for sale in the public market.

As of March 1, 2017, 6,009,267 shares of common stock that are either subject to outstanding options, reserved for future issuance under our equity incentive plans or subject to outstanding warrants became eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

As of March 1, 2017, the holders of approximately 22,825,695 shares of our common stock are entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the market price of our common stock.

Actual or potential sales of our common stock by our employees, including our executive officers, pursuant to pre-arranged stock trading plans could cause our stock price to fall or prevent it from increasing for numerous reasons, and actual or potential sales by such persons could be viewed negatively by other investors.

In accordance with the guidelines specified under Rule 10b5-1 of the Securities Exchange Act of 1934, as amended, and our policies regarding stock transactions, our employees, executive officers and directors may adopt stock trading plans pursuant to which they have arranged to sell shares of our common stock from time to time in the future. Generally, sales under such plans by our executive officers and directors require public filings. Actual or potential sales of our common stock by such persons could cause the price of our common stock to fall or prevent it from increasing for numerous reasons. For example, a substantial number of shares of our common stock becoming available (or being perceived to become available) for sale in the public market could cause the market price of our common stock to fall or prevent it from increasing. Also, actual or potential sales by such persons could be viewed negatively by other investors.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or our guidance.

Our quarterly and annual operating results may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. From time to time, we may enter into license or collaboration agreements with other companies that include development funding and significant upfront and milestone payments and/or royalties, which may become an important source of our revenue. Accordingly, our revenue may depend on development funding and the achievement of development and clinical milestones under current and any potential future license and collaboration agreements and sales of our products, if approved. These upfront and milestone payments may vary significantly from period to period and any such variance could cause a significant fluctuation in our operating results from one period to the next.

In addition, we measure compensation cost for stock-based awards made to employees at the grant date of the award, based on the fair value of the award as determined by our board of directors, and recognize the cost as an expense over the employee's requisite service period. As the variables that we use as a basis for valuing these awards change over time, including our underlying stock price and stock price volatility, the magnitude of the expense that we must recognize may vary significantly.

Furthermore, our operating results may fluctuate due to a variety of other factors, many of which are outside of our control and may be difficult to predict, including the following:

- the timing and cost of, and level of investment in, research and development activities relating to our current and any future product candidates, which will change from time to time;
- our ability to enroll patients in clinical trials and the timing of enrollment;
- the cost of manufacturing our current and any future product candidates, which may vary depending on FDA guidelines and requirements, the quantity of production and the terms of our agreements with manufacturers;
- expenditures that we will or may incur to acquire or develop additional product candidates and technologies;
- the timing and outcomes of clinical studies for JTX-2011, JTX-4014 and any other future product candidates or competing product candidates;

- competition from existing and potential future products that compete with JTX-2011, JTX-4014 and any other future product candidates, and changes in the competitive landscape of our industry, including consolidation among our competitors or partners;
- any delays in regulatory review or approval of JTX-2011, JTX-4014 or any other future product candidates;
- the level of demand for JTX-2011, JTX-4014 and any other future product candidates, if approved, which may fluctuate significantly and be difficult to predict;
- the risk/benefit profile, cost and reimbursement policies with respect to our products candidates, if approved, and existing and potential future products that compete with JTX-2011, JTX-4014 and any other future product candidates;
- our ability to commercialize JTX-2011, JTX-4014 and any other future product candidates, if approved, inside and outside of the United States, either independently or working with third parties;
- the success of our collaboration with Celgene and our ability to establish and maintain other collaborations, licensing or other arrangements;
- our ability to adequately support future growth;
- potential unforeseen business disruptions that increase our costs or expenses;
- future accounting pronouncements or changes in our accounting policies; and
- the changing and volatile global economic environment.

The cumulative effect of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue and/or earnings guidance we may provide.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.

The trading market for our common stock will rely, in part, on the research and reports that industry or financial analysts publish about us or our business. If few analysts commence coverage of us, the trading price of our stock would likely decrease. If one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which, in turn, could cause our stock price to decline.

We have broad discretion in how we use our cash, cash equivalents and marketable securities, including the net proceeds from our IPO and may not use these financial resources effectively, which could affect our results of operations and cause our stock price to decline.

Our management has considerable discretion in the application of our cash, cash equivalents and marketable securities, including the net proceeds from our IPO. We intend to use the cash, cash equivalents and marketable securities to advance JTX-2011 through the completion of our multi-arm Phase I/II clinical study, to advance JTX-4014 through IND and planned clinical studies, to advance and expand our research and development pipeline, and for working capital and other general corporate purposes, which will include the hiring of additional personnel, capital expenditures, and the costs of operating as a public company. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the cash, cash equivalents and marketable securities. We may use the cash, cash equivalents and marketable securities for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from the offering in a manner that does not produce income or that loses value.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may delay or prevent an acquisition of us or a change in our management. These provisions include a classified board of directors, a prohibition on actions by written consent of our stockholders and the ability of our board of directors to issue preferred stock without stockholder approval. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Although we believe these provisions collectively provide for an opportunity to obtain greater value for stockholders by requiring potential acquirors to negotiate with our board of directors, they would apply even if an offer rejected by our board were considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

Our bylaws designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our bylaws, provide that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers and employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws, or (iv) any action asserting a claim that is governed by the internal affairs doctrine, in each case subject to the Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. Any person purchasing or otherwise acquiring any interest in any shares of our capital stock shall be deemed to have notice of and to have consented to this provision of our bylaws. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees even though an action, if successful, might benefit our stockholders. Stockholders who do bring a claim in the Court of Chancery could face additional litigation costs in pursuing any such claim, particularly if they do not reside in or near the State of Delaware. The Court of Chancery may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. Alternatively, if a court were to find this provision of our amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs, which could have a material adverse effect on our business, financial condition or results of operations.

ITEM 1B. Unresolved Staff Comments

Not applicable.

ITEM 2. Properties

We lease a facility containing our research and development, laboratory and office space, which consists of approximately 17,807 square feet located at 1030 Massachusetts Avenue, Cambridge, Massachusetts. Our lease expires in October 2018. We sublease an additional 11,980 square feet of research and development, laboratory and office space in the same building. Our sublease expires in March 2018.

We lease a facility containing our research and development, laboratory and office space, which consists of approximately 51,000 square feet located at 780 Memorial Drive, Cambridge, Massachusetts. Our lease expires on March 31, 2025. This facility will be the Company's new corporate headquarters. We believe that our facilities are sufficient to meet our current needs.

ITEM 3. Legal Proceedings

We are not currently a party to any material legal proceedings.

ITEM 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information

Our common stock trades on the NASDAQ Global Select Market under the symbol "JNCE". Trading of our common stock commenced on January 27, 2017 in connection with our initial public offering, or IPO. Prior to that time, there was no established public trading market for our common stock. As a result, we have not set forth quarterly information with respect to the high and low prices for our common stock for the two most recent fiscal years. The following table sets forth for the period indicated the high and low sale prices per share for our common stock as reported on the NASDAQ Global Select Market for the period indicated:

	Market Price	
	High	Low
First Quarter (January 27, 2017 to March 1, 2017)	$22.81	$16.33

Holders

As of March 1, 2017, we had approximately 70 holders of record of our common stock. This number does not include beneficial owners whose shares were held in street name. The actual number of holders of our common stock is greater than this number of record holders and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers or held by other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be made at the discretion of our board of directors and will depend on various factors, including applicable laws, our results of operations, financial condition, future prospects, then applicable contractual restrictions and any other factors deemed relevant by our board of directors. Investors should not purchase our common stock with the expectation of receiving cash dividends.

Recent Sales of Unregistered Securities

During the period covered by this Form 10-K, we have issued the following securities that were not registered under the Securities Act:

1. We have granted stock options to purchase an aggregate of 1,500,371 shares of our common stock, with exercise prices ranging from $4.06 to $9.56 per share, to employees, directors, and consultants pursuant to our 2013 Stock Option and Grant Plan.
2. We have issued an aggregate of 53,442 shares of common stock to employees, directors, and consultants for cash consideration in the aggregate amount of $47,659 upon the exercise of stock options.
3. We have not issued shares of restricted common stock to employees, directors, and consultants. We have repurchased 115,935 restricted shares for an aggregate of $464.
4. On August 1, 2016, we issued and sold to an investor 10,448,100 shares of our Series B-1 convertible preferred stock, for aggregate consideration of approximately $36.1 million.

We deemed the grants and exercises of stock options described in paragraphs (1), (2) and (3) above as exempt pursuant to Section 4(a)(2) of the Securities Act or in reliance on Rule 701 of the Securities Act as offers and sales of securities under compensatory benefit plans and contracts relating to compensation in compliance with Rule 701. Each of the recipients of securities in any transaction exempt from registration either received or had adequate access, through employment, business or other relationships, to information about us.

We deemed the offer, sale and issuance of the securities described in paragraphs 4 above to be exempt from registration under the Securities Act, in reliance on Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, regarding transactions by an issuer not involving a public offering. All purchasers of securities in transactions exempt from registration pursuant to Regulation D represented to us that they were accredited investors and were acquiring the shares for investment purposes only and not with a view to, or for sale

in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

Purchase of Equity Securities

We did not purchase any of our registered equity securities during the period covered by this Annual Report on Form 10-K.

Use of Proceeds from Registered Securities

On February 1, 2017, we completed our IPO and sold 7,319,750 shares of our common stock, including 954,750 shares of our common stock pursuant to the full exercise by the underwriters of an option to purchase additional shares, at a public offering price of $16.00 per share for an aggregate offering of approximately $117.1 million. The offer and sale of the shares in the IPO were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-215372), which was filed on December 30, 2016 and amended subsequently and declared effective on January 17, 2017. Following the sale of the shares in connection with the closing of our IPO, the offering terminated. J.P. Morgan Securities LLC acted as book-running manager of the offering, and Cowen and Company LLC, Wells Fargo Securities, LLC, and Robert W. Baird & Co. Incorporated acted as co-managers for the offering. We received aggregate net proceeds from the IPO of approximately $108.9 million, after deducting underwriting discounts and commissions and other offering expenses payable by us. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning ten percent or more of any class of our equity securities or to any other affiliates.

Information related to use of proceeds from registered securities is incorporated herein by reference to the “Use of Proceeds” section of the Company’s Form 424B4, which was filed with the Securities and Exchange Commission on January 27, 2017. There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus.

Performance Graph

We have elected not to include a performance graph in this Annual Report on Form 10-K because the period between the date that our common stock began trading on the NASDAQ Global Select Market and the end of our most recently completed fiscal year is 30 days or less.

ITEM 6. Selected Financial Data

You should read the following selected financial data below together with our consolidated financial statements and the related notes appearing at the end of "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this Form 10-K. The selected financial data in this section are not intended to replace the consolidated financial statements and are qualified in their entirety by the consolidated financial statements and related notes appearing at the end of this Form 10-K. We have derived the consolidated statement of operations data for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016, 2015 and 2014 from our audited consolidated financial statements. Our historical results are not necessarily indicative of results that may be expected in any future period.

	Year Ended December 31,		
(in thousands, except share and per share data)	**2016**	**2015**	**2014**
Consolidated Statements of Operations Data:			
Revenue:			
Collaboration revenue-related party	$ 37,197	$ —	$ —
Operating expenses:			
Research and development	34,904	22,130	11,243
General and administrative	16,759	8,266	4,969
Total operating expenses	51,663	30,396	16,212
Operating loss	(14,466)	(30,396)	(16,212)
Other income (expense), net	763	1,864	5,696
Net loss	$ (13,703)	$ (28,532)	$ (10,516)
Accrued dividends on convertible preferred stock and accretion of redeemable convertible preferred stock to redemption value (1)	(9,435)	(8,971)	(2,434)
Net loss attributable to common shareholders (1)	$ (23,138)	$ (37,503)	$ (12,950)
Net loss per share attributable to common stockholders, basic and diluted(1)	$ (11.00)	$ (23.13)	$ (10.93)
Weighted-average common shares outstanding, basic and diluted(1)	2,102,651	1,621,240	1,184,440

(1) See consolidated statements of operations and Note 2 to our consolidated financial statements for further details on the calculation of net loss per share, basic and diluted, attributable to common stockholders and the weighted-average number of shares used in the computation.

	As of December 31,		
(in thousands)	**2016**	**2015**	**2014**
Balance Sheet Data:			
Cash, cash equivalents, and marketable securities	$ 257,374	$ 45,161	$ 2,338
Working capital	$ 61,114	$ 38,989	$ 403
Total assets	$ 271,312	$ 52,975	$ 7,515
Convertible preferred stock	$ 139,038	$ 102,961	$ 27,313
Total stockholders' deficit	$ (69,088)	$ (58,760)	$ (28,000)

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 together with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors. We discuss factors that we believe could cause or contribute to these differences below and elsewhere in this report, including those factors set for under "Item 1A. Risk Factors" and under "Cautionary Note Regarding Forward-Looking Statements" in this Annual Report.

Overview

We are a clinical stage immunotherapy company dedicated to transforming the treatment of cancer by developing therapies that enable the immune system to attack tumors and provide long-lasting benefits to patients. Through the use of our Translational Science Platform, we first focus on specific cell types within tumors to prioritize targets, and then identify related biomarkers designed to match the right therapy to the right patient. Our strategy is to create immunotherapies targeting a variety of the diverse cellular components of the immune system, as well as non-immune cells resident within the tumor, all of which can vary greatly among tumors within and across indications. This may provide benefit to patients with tumors across the spectrum from highly inflamed, or hot, to poorly inflamed, or cold, and especially those not well served by current therapies. We believe the early identification of potential predictive biomarkers to prospectively enrich for biomarker positive cancer patients, from across many indications, may lead to shortened development timelines for our new immunotherapies. Our approach is designed to lead to a larger effect size by first identifying and then focusing on a smaller biomarker positive study population. Through this two-pronged approach, we believe our Translational Science Platform enables us to effectively and efficiently identify and develop new cancer immunotherapies.

- Our lead product candidate, JTX-2011, is a clinical stage monoclonal antibody that binds to and activates ICOS, a protein on the surface of certain T cells commonly found in many solid tumors. Our preclinical data demonstrates that JTX-2011 stimulates a significant T cell immune response against solid tumors. We submitted our Investigational New Drug Application, or IND, for JTX-2011 to the Food and Drug Administration, or FDA, in July 2016 and began our JTX-2011 multi-arm Phase I/II clinical trial in patients with solid tumors in August 2016. We believe JTX-2011 has the potential to act both as a single agent and more importantly in combination with other therapies, such as anti-PD-1 antibodies, to offer treatment alternatives to patients who otherwise lack an effective response to currently approved therapies. We are also conducting IND enabling studies for JTX-4014, an anti-PD-1 antibody, that assuming continued successful development, we intend to use in future combinations with JTX-2011 as well as for use in combination with other future product candidates, as we believe combination therapy has the potential to be a mainstay of cancer immunotherapy.
- We are discovering and developing immunotherapies beyond the currently approved products targeting T effector cells. To do so, we are leveraging our Translational Science Platform to systematically and comprehensively interrogate cell types within the human tumor microenvironment, or TME, to enable us to develop therapies with the potential to benefit patients with tumors across the spectrum from hot to cold. This includes focusing on adaptive and innate immune cells, such as B and T regulatory cells, and immunosuppressive macrophages, respectively. Therapies targeting these cell types and cell subsets may have the potential to complement existing approaches that focus on T effector cells and thereby benefit many patients who do not respond to the currently approved T effector cell-focused immunotherapies. In addition, we are discovering and developing multiple approaches, including targeting stromal cells, with the potential to convert cold tumors to hot tumors, thereby making the tumors more amenable to immunotherapy, perhaps in combination approaches.

Immunotherapies are increasingly recognized as a critical component of cancer therapy and are beginning to fundamentally change the paradigm for treating patients. Fewer than half of all cancer patients respond to single agent immunotherapies. Combination therapies are beginning to yield greater responses than single agent therapies, yet there is still significant unmet medical need among large patient populations across most solid tumor indications. In addition, there is a significant number of patients with tumors that lack, or have low levels of, immune cell infiltrate where additional approaches may be required to fully realize the benefit of immunotherapy agents. We believe targeting novel immune mechanisms in combination with identifying and using predictive biomarkers may best address these areas of unmet need.

Our Translational Science Platform utilizes a suite of integrated technologies to comprehensively profile the cellular and molecular characteristics within thousands of human solid tumors, providing critical information about the TME that we believe will allow us to identify and guide new immunotherapies more efficiently through development. We utilize a systematic approach to match targets to defined patient populations, as well as niche indications and/or niche subsets within indications, which we believe are more likely to benefit from these therapies. Building on our biomarker-driven strategy, we aim to establish complementary diagnostics and/or companion diagnostics for each of our product candidates to identify the right patients for treatment.

Since inception, our operations have focused on organizing and staffing our Company, business planning, raising capital, developing our Translational Science Platform and conducting research and preclinical studies. We do not have any products approved for sale. From inception through December 31, 2016, we have recognized a total of $37.2 million in revenue from our Celgene collaboration. We are subject to a number of risks comparable to those of other similar companies, including dependence on key individuals; the need to develop commercially viable products; competition from other companies, many of which are larger and better capitalized; and the need to obtain adequate additional financing to fund the development of our products.

From inception through December 31, 2016, we raised an aggregate of $139.1 million of gross proceeds from sales of our convertible preferred stock.

On February 1, 2017, we closed our initial public offering, or IPO, of 7,319,750 shares of our common stock at a public offering price of $16.00 per share, including 954,750 shares of our common stock issued upon the full exercise by the underwriters of their option to purchase additional shares. The gross proceeds from the initial public offering were approximately $117.1 million or net proceeds of approximately $108.9 million, after deducting underwriting discounts and commissions and other offering expenses payable by us.

In July 2016, we entered into a Master Research and Collaboration Agreement and a Series B-1 Preferred Stock Purchase Agreement with Celgene. Under the terms of the agreements, we received a $225.0 million upfront cash payment and $36.1 million from the sale of 10,448,100 shares of our Series B-1 convertible preferred stock. Under the agreement, we granted Celgene exclusive options to develop and commercialize our lead product candidate, JTX-2011, JTX-4014, and up to four early-stage programs consisting of targets to be selected from a pool of certain B cell, T regulatory cell and tumor-associated macrophage targets. If Celgene exercises any of its options, then Celgene will pay us an option-exercise fee, the parties will enter into a co-development and co-commercialization agreement or a license agreement that governs the development and commercialization of the applicable program, in substantially the form attached to the agreement as an exhibit, and we will then split future development and commercialization costs with Celgene in accordance with such agreement. Celgene may extend the initial four-year research term of the collaboration for up to three additional one-year periods upon payment of an extension fee for each additional year. Additionally, under the terms of the agreement, if Celgene exercises all of its options, all programs meet all milestones, including regulatory approvals in the United States and outside the United States, and Celgene extends the initial four year research term for three additional years, we are eligible to earn up to approximately $2.6 billion in clinical, regulatory, and/or commercialization milestone payments, option-exercise fees and research term extension fees.

The development milestones are payable on initiation of certain clinical trials and range from $32.5 million to $105.0 million, per program, with an aggregate total of $290.0 million. The regulatory approval milestones are payable upon regulatory approval in the United States and outside the United States and range from $7.5 million to $50.0 million per milestone, with an aggregate total of $700.0 million. The commercial milestones are payable upon achievement of specified aggregate product sales outside the United States for each program and range from $40.0 million to $200.0 million per milestone, with an aggregate total of $1.270 billion. We are also eligible to receive royalties on product sales outside the United States ranging from high single digit to mid-teen royalties. If Celgene elects to exercise any of the program options, Celgene will pay us an option-exercise fee of $10.0 million to $60.0 million that varies by program, with an aggregate of $182.5 million if Celgene exercises all six program options. The initial research term of the collaboration is four years, which can be extended, at Celgene's option, annually for up to three additional years for additional consideration that ranges from $30.0 million to $45.0 million per year, for an aggregate of $120.0 million if the term is extended for an additional three years.

Due to our significant research and development expenditures, we have generated substantial operating losses in each period since inception. We have incurred an accumulated deficit of $73.2 million through December 31, 2016. We expect to incur substantial additional losses in the future as we expand our research and development activities. We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- complete our multi-arm Phase I/II clinical trial with our lead product candidate, JTX-2011;

- complete our IND enabling activities for JTX-4014 and advance this program into clinical trials for use in combination with JTX-2011 and other potential product candidates;
- continue to develop and identify potential predictive biomarkers and complementary diagnostics and/or companion diagnostics for JTX-2011 and other potential product candidates;
- continue to develop and enhance our Translational Science Platform and advance our early stage pipeline of immunotherapy programs including early research activities under our Celgene collaboration into later stages of development;
- increase our headcount to support our Celgene collaboration efforts and to expand our clinical development team; and
- incur additional costs and headcount associated with operating as a public company.

Financial Operations Overview

Revenue

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from product sales for the foreseeable future. For the year ended December 31, 2016, we recognized $37.2 million of collaboration revenue from our collaboration with Celgene. As of December 31, 2016, we had not received any milestone or royalty payments under the collaboration. For additional information about our revenue recognition policy related to the collaboration, see the section titled “Critical Accounting Policies and Estimates—Revenue Recognition.”

In the future, we will continue to generate revenue from the Celgene collaboration and may generate revenue from product sales or other collaboration agreements, strategic alliances and licensing arrangements. We expect that our revenue will fluctuate from quarter to quarter and year to year as a result of the timing and amount of license fees, milestones, reimbursement of costs incurred and other payments and product sales, to the extent any are successfully commercialized. If we fail to complete the development of our product candidates in a timely manner or obtain regulatory approval for them, our ability to generate future revenue, and our results of operations and financial position, would be materially adversely affected.

Operating Expenses

Research and Development

Research and development expenses represent costs incurred by us for the discovery, development, and manufacture of JTX-2011, JTX-4014, and our discovery programs and include: external research and development expenses incurred under arrangements with third parties, academic and non-profit institutions and consultants, salaries and personnel-related costs, including non-cash stock-based compensation, license fees to acquire in-process technology, and other expenses, which include direct and allocated expenses for laboratory, facilities, and other costs.

We use our employee and infrastructure resources across multiple research and development programs directed toward developing our Translational Science Platform and for identifying and developing product candidates. We manage certain activities such as contract research and manufacture of JTX-2011, JTX-4014, and our discovery programs through our third-party vendors.

At this time, we cannot reasonably estimate or know the nature, timing, and estimated costs of the efforts that will be necessary to complete the development of our product candidates. We are also unable to predict when, if ever, material net cash inflows will commence from sales of our product candidates. This is due to the numerous risks and uncertainties associated with developing such product candidates, including the uncertainty of:

- addition and retention of key research and development personnel;
- establishing an appropriate safety profile with IND-enabling toxicology studies;
- the cost to acquire or make therapies to study in combination with our immunotherapies;
- successful enrollment in and completion of clinical trials;
- establishing agreements with third-party manufacturers for clinical supply for our clinical trials and commercial manufacturing, if our product candidates are approved;

- receipt of marketing approvals from applicable regulatory authorities;
- commercializing products, if and when approved, whether alone or in collaboration with others;
- the cost to develop complementary diagnostics and/or companion diagnostics as needed for each of our development programs;
- the costs associated with the development of any additional product candidates we acquire through third-party collaborations or identify through our Translational Science Platform;
- the terms and timing of any collaboration, license or other arrangement, including the terms and timing of any milestone payments thereunder;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our products if and when approved; and
- continued acceptable safety profiles of the products following approval.

A change in the outcome of any of these variables with respect to the development of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate. We plan to increase our research and development expenses for the foreseeable future as we continue the enhancement of our Translational Science Platform, our research collaboration with Celgene and continue to progress our pipeline. At this time, due to the inherently unpredictable nature of preclinical and clinical development and given the early stage of our programs and/or product candidates, we do not track our internal research and development expenses on a program-by-program basis as they primarily relate to personnel, early research, and consumable costs, which are deployed across multiple projects under development. Also, due to the early stage of our programs and product candidates, we cannot reasonably estimate the costs we will incur and the timelines that will be required to complete development, obtain marketing approval, and commercialize our products, if and when approved. A portion of our research and development costs are external costs, which we do track on a program-by-program basis following the program's nomination to the development candidate stage. We began incurring such external costs for JTX-2011, the first of our programs to reach the development candidate stage, in early 2015 and JTX-4014, in early 2016. Included below are external research and development as well as external clinical and regulatory costs for JTX-2011, JTX-4014 and pre-development candidates:

	Year Ended December 31,	
(in thousands)	**2016**	**2015**
JTX-2011	$ 8,887	$ 4,682
JTX-4014	1,481	—
Pre-development candidate expenses	1,111	1,409
Total external research and development and clinical and regulatory costs	$ 11,479	$ 6,091

Research and development activities account for a significant portion of our operating expenses. We expect our research and development expenses to increase over the next several years as we continue to implement our business strategy, which includes advancing JTX-2011 through Phase I/II clinical trials, manufacturing pre-commercial clinical trial and preclinical study materials, completing IND enabling studies for JTX-4014, expanding our research and development efforts, seeking regulatory approvals for any product candidates that successfully complete clinical trials, accessing and developing additional product candidates, and costs associated with hiring additional personnel to support our research and development efforts. In addition, product candidates in later stages of clinical development generally incur higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. As such, we expect our research and development expenses to increase as our product candidates advance into later stages of clinical development.

General and Administrative

General and administrative expenses consist of salaries and personnel-related costs, including non-cash stock-based compensation, for our personnel in executive, legal, finance and accounting, human resources and other administrative functions, non-litigation legal costs, as well as fees paid for accounting and tax services, consulting fees, and facility costs not otherwise included in research and development expenses. Non-litigation legal costs include general corporate and patent legal fees and related costs.

We anticipate that our general and administrative expenses will increase in the future to support our continued research and development activities and the increased costs of operating as a public company. These increases will likely include costs related to additional personnel, outside consultants, attorneys, and accountants, among other expenses.

Other Income (Expense), Net

Other income (expense), net, consists primarily of changes in the fair value of our Series A convertible preferred stock Tranche Rights, which are described below under "Critical Accounting Policies and Estimates—Fair Value Measurements—Tranche Rights" and interest and investment income on our cash, cash equivalents, and marketable securities.

Results of Operations

Comparison of Years Ended December 31, 2016 and 2015

The following table summarizes our results of operations for the years ended December 31, 2016 and 2015, along with the changes in those items in dollars:

	Year Ended December 31,		
(in thousands)	**2016**	**2015**	**$ Change**
Revenue:			
Collaboration revenue-related party	$ 37,197	$ —	$ 37,197
Operating expenses:			
Research and development	34,904	22,130	12,774
General and administrative	16,759	8,266	8,493
Total operating expenses	51,663	30,396	21,267
Other income (expense), net	763	1,864	(1,101)
Net loss	$ (13,703)	$ (28,532)	$ 14,829

Collaboration Revenue

Collaboration revenue for the year ended December 31, 2016 relates to amortization of the $225.0 million upfront payment received under our Celgene Collaboration Agreement executed in July 2016.

Research and Development

Research and development expenses increased $12.8 million from $22.1 million for the year ended December 31, 2015 to $34.9 million for the year ended December 31, 2016. The following table summarizes our research and development expenses for the years ended December 31, 2016 and 2015:

	Year Ended December 31,		
(in thousands)	**2016**	**2015**	**$ Change**
Employee compensation	$ 13,569	$ 7,259	$ 6,310
External research and development	7,617	6,091	1,526
External clinical and regulatory	3,862	—	3,862
Lab consumables	4,813	4,972	(159)
Consulting research	1,025	1,254	(229)
Facility costs	2,782	1,953	829
Other research	1,236	601	635
Total research and development expenses	$ 34,904	$ 22,130	$ 12,774

The increase in research and development expenses was primarily attributable to the following:

- $6.3 million for increased costs related to employee compensation due to increased headcount and $1.8 million of stock-based compensation expense related to the achievement of milestones which triggered vesting of certain outstanding awards granted to non-employees;

- $1.5 million for increased external research and development costs primarily related to the completion of IND enabling activities for our lead program JTX-2011, commencement of IND enabling activities related to JTX-4014, and external costs associated with our early discovery programs;
- $3.9 million of clinical and regulatory costs related to our JTX-2011 Phase I/II clinical trial; and
- $0.8 million in increased facility costs, including rent and utilities, depreciation, and maintenance costs.

General and Administrative

General and administrative expenses increased by $8.5 million from $8.3 million for the year ended December 31, 2015 to $16.8 million for the year ended December 31, 2016. The increase in general and administrative expense was primarily attributable to the following:

- $2.4 million for increased employee compensation costs due to increased headcount;
- $2.0 million for legal and accounting costs associated with our prior confidential registration statement on Form S-1 filed in 2015. The IPO was postponed for a period significantly in excess of 90 days and as a result, the previously capitalized costs were written off to general and administrative expenses;
- $1.3 million for non-litigation related legal costs, of which $1.0 million was related to legal costs associated with business development activities;
- $0.9 million for increased fees related to external recruiting, accounting and tax; and
- $0.7 million for increased facility costs including rent and utilities, depreciation and maintenance costs.

Other Income (Expense), net

Other income (expense), net, decreased $1.1 million from a net income of $1.9 million for the year ended December 31, 2015 to $0.8 million for the year ended December 31, 2016. The decrease in other income (expense), net, primarily relates to the mark to market adjustments recorded on our Series A convertible preferred stock Tranche Rights which were terminated with the final closing of the Series A convertible preferred stock financing in April 2015. Other income (expense), net, for the year ended December 31, 2016 is primarily interest and investment income on our cash, cash equivalents and marketable securities.

Comparison of Years Ended December 31, 2015 and 2014

The following table summarizes our results of operations for the years ended December 31, 2015 and 2014, along with the changes in those items in dollars:

	Year Ended December 31,		
(in thousands)	**2015**	**2014**	**$ Change**
Operating expenses:			
Research and development	$ 22,130	$ 11,243	$ 10,887
General and administrative	8,266	4,969	3,297
Total operating expenses	30,396	16,212	14,184
Other income (expense), net	1,864	5,696	(3,832)
Net loss	$ (28,532)	$ (10,516)	$ (18,016)

Research and Development

Research and development expenses increased $10.9 million from $11.2 million for the year ended December 31, 2014 to $22.1 million for the year ended December 31, 2015. The following table summarizes our research and development expenses for the years ended December 31, 2015 and 2014, as well as the changes to those items in dollars:

	Year Ended December 31,		
(in thousands)	**2015**	**2014**	**$ Change**
Employee compensation	$ 7,259	$ 3,727	$ 3,532
External research and development	6,091	1,988	4,103
Lab consumables	4,972	2,885	2,087
Consulting research	1,254	938	316
Facility costs	1,953	1,170	783
Other research	601	535	66
Total research and development expenses	$ 22,130	$ 11,243	$ 10,887

The increase in research and development expenses was primarily attributable to the following:

- $3.5 million for increased costs related to employee compensation due to increased headcount and new incentive compensation plans;
- $4.1 million for increased external research and development costs primarily related to advancing our lead program, JTX-2011;
- $2.1 million for increased costs for lab consumables related to increased headcount and research activities; and
- $0.8 million in increased facility costs, including rent and utilities, depreciation, and maintenance costs.

General and Administrative

General and administrative expenses increased by $3.3 million from $5.0 million for the year ended December 31, 2014 to $8.3 million for the year ended December 31, 2015. The increase in general and administrative expense was primarily attributable to the following:

- $1.8 million for increased employee compensation costs due to increased headcount and new incentive compensation plans;
- $0.5 million for increased facility costs including rent and utilities, depreciation, and maintenance costs; and
- $0.5 million for increased non-litigation related legal costs and consulting fees.

Other Income (Expense), Net

Other income (expense), net, decreased from a net income of $5.7 million for the year ended December 31, 2014 to $1.9 million for the year ended December 31, 2015. The decrease in other income (expense), net, primarily related to the mark to market adjustments recorded on our Series A convertible preferred stock Tranche Rights in these periods.

Liquidity and Capital Resources

Sources of Liquidity

We have funded our operations through December 31, 2016 with proceeds from private placements of our Series A, Series B, and Series B-1 convertible preferred stock of $139.1 million, and a non-refundable upfront payment of $225.0 million received in connection with our Celgene Collaboration Agreement.

On February 1, 2017, we closed our IPO of 7,319,750 shares of our common stock at a public offering price of $16.00 per share, including 954,750 shares of our common stock issued upon the full exercise by the underwriters of their option to purchase additional shares. The gross proceeds from the initial public offering were approximately $117.1 million and the net proceeds were approximately $108.9 million, after deducting underwriting discounts and commissions and other offering expenses payable by us.

Plan of Operation and Future Funding Requirements

Our plan of operation is to continue implementing our business strategy, continue the research and development of our lead programs JTX-2011 and JTX-4014, continue to expand our research pipeline and our internal research and development capabilities, including the enhancement of our Translational Science Platform.

We plan to increase our research and development expenses for the foreseeable future as we continue to advance JTX-2011, JTX-4014 and our discovery programs, conduct research under the Celgene Collaboration Agreement and continue to enhance our Translational Science Platform. At this time, due to the inherently unpredictable nature of preclinical and clinical development and given the early stage of our programs and product candidates, we cannot reasonably estimate the costs we will incur and the timelines that will be required to complete development, obtain marketing approval, and commercialize our products, if and when approved. For the same reasons, we are also unable to predict when, if ever, we will generate revenue from product sales or whether, or when, if ever, we may achieve profitability. Clinical and preclinical development timelines, the probability of success, and development costs can differ materially from expectations. In addition, we cannot forecast which products, if and when approved, may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Due to our significant research and development expenditures, we have generated substantial operating losses in each period since inception. We have incurred an accumulated deficit of $73.2 million through December 31, 2016. We expect to incur substantial additional losses in the future as we expand our research and development activities and continue to advance our programs. Based on our research and development plans, we expect that the net proceeds from our IPO of $108.9 million, together with our existing cash, cash equivalents and marketable securities of $257.4 million, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 24 months. However, we have based this estimate on assumptions that may prove to be incorrect and we could exhaust our capital resources sooner than we expect. The timing and amount of our operating expenditures will depend largely on:

- the timing and progress of preclinical and clinical development activities;
- the cost to access, acquire, or make therapies to study in combination with our immunotherapies;
- successful enrollment in and completion of clinical trials;
- the cost to develop complementary diagnostics and/or companion diagnostics as needed for each of our development programs;
- our ability to establish agreements with third-party manufacturers for clinical supply for our clinical trials and, if our product candidate is approved, commercial manufacturing;
- the costs associated with the development of any additional product candidates we acquire through third-party collaborations or identify through our Translational Science Platform;
- our ability to maintain our current research and development programs and enhancement of our Translational Science Platform;
- addition and retention of key research and development personnel;
- our efforts to enhance operational, financial and information management systems, and hire additional personnel, including personnel to support development of our product candidates;
- the legal patent costs involved in prosecuting patent applications and enforcing patent claims and other intellectual property claims;
- the costs and ongoing investments to in-license or acquire additional technologies, including the in-license of intellectual property related to our potential product candidates, the effectiveness of which is subject to certain conditions; and
- the terms and timing of any collaboration, license or other arrangement, including the terms and timing of any milestone payments thereunder.

A change in the outcome of any of these or other variables with respect to the development of any of our product candidates could significantly change the costs and timing associated with the development of that product candidate. Furthermore, our operating plans may change in the future, and we may need additional funds to meet operational needs and capital requirements associated with such operating plans.

In addition to the variables described above, if and when any of our product candidates successfully complete development, we have incurred and will continue to incur substantial additional costs associated with regulatory filings, marketing approval, post-marketing requirements, maintaining our intellectual property rights, and regulatory protection, in addition to other costs. We cannot reasonably estimate these costs at this time.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity or debt financings and collaboration arrangements including our Celgene Collaboration Agreement. We currently have no credit facility or committed sources of capital. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interests of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds through the issuance of debt securities, these securities could contain covenants that would restrict our operations. We may require additional capital beyond our currently anticipated amounts. Additional capital may not be available on reasonable terms, or at all. If we raise additional funds through collaboration arrangements in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates, or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce, or terminate development or future commercialization efforts, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Historical Cash Flows

The following table provides information regarding our cash flows for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
(in thousands)	**2016**	**2015**	**2014**
Net cash provided by (used in):			
Operating activities	$ 179,688	$ (25,739)	$ (14,909)
Investing activities	(215,508)	(2,142)	(709)
Financing activities	35,507	70,704	15,006
Net increase (decrease) in cash and cash equivalents	$ (313)	$ 42,823	$ (612)

Cash Used in Operating Activities

Net cash provided by operating activities for the year ended December 31, 2016 was $179.7 million, compared to net cash used by operating activities of $25.7 million during the year ended December 31, 2015. Cash provided by operating activities increased $205.4 million primarily due to the $225.0 million upfront payment received from Celgene; offset by cash used to fund operating expenses in the year.

Net cash used in operating activities for the year ended December 31, 2015 was $25.7 million, compared to $14.9 million during the year ended December 31, 2014. The increase of $10.8 million of cash used in operating activities was primarily attributable to increases in net loss of $14.4 million, when adjusted for the non-cash impact of the fair value remeasurement of the Tranche Rights.

Cash Used in Investing Activities

Net cash used in investing activities for the year ended December 31, 2016 was $215.5 million, compared to $2.1 million for the year ended December 31, 2015. The increase of $213.4 million of cash used in investing activities was primarily attributable to the purchases of marketable securities during the year ended December 31, 2016.

Net cash used in investing activities for the year ended December 31, 2015 was $2.1 million, compared to $0.7 million during the year ended December 31, 2014. The increase of $1.4 million of cash used in investing activities was primarily attributable to purchases of laboratory equipment and leasehold improvements.

Cash Provided by Financing Activities

Net cash provided by financing activities for the year ended December 31, 2016 was $35.5 million, compared to $70.7 million for the year ended December 31, 2015. The decrease of $35.2 million of cash provided by financing activities was primarily attributable to the sale of the Series B convertible preferred stock for net proceeds of $55.8 million and the closing of the final two Series A convertible preferred stock financing tranches with net proceeds of $15.0 million during the year ended December 31, 2015, as compared to the sale of the Series B-1 convertible preferred stock for net proceeds of $36.1 million during the year ended December 31, 2016.

Net cash provided by financing activities for the year ended December 31, 2015 was $70.7 million compared to $15.0 million for the year ended December 31, 2014. The increase was primarily attributable to the issuance of the Series B convertible preferred stock for net proceeds of $55.8 million in April 2015.

Contractual Obligations

Our contractual obligations as of December 31, 2016 were as follows:

(in thousands)	Total	Less than 1 Year	1 - 3 years	4 - 5 years	More than 5 years
Operating lease obligations(1)	$ 39,328	$ 5,252	$ 9,507	$ 8,914	$ 15,655

(1) Represents future minimum lease payments under our non-cancellable operating office and lab space lease as of December 31, 2016.

We have also entered into license and collaboration agreements with various third parties, both of which are in the normal course of business. We have not included these future payments in the table of contractual obligations above since the contracts are cancellable at any time by us, generally upon 30 to 90 days prior written notice. The payment obligations under these license and collaboration agreements are contingent upon future events such as our achievement of specified development, regulatory, and commercial milestones, or royalties on net product sales. As of December 31, 2016, the aggregate maximum amount of milestone payments we could be required to make under our then-existing license and collaboration agreements was $7.1 million and $12.5 million per product candidate, respectively. As of December 31, 2016, we were unable to estimate the timing or likelihood of achieving these milestones or generating future product sales.

Off-Balance Sheet Arrangements

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable Securities and Exchange Commission rules.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Revenue Recognition

We recognize revenue from license and collaboration agreements in accordance with FASB ASC Topic 605, *Revenue Recognition,* or ASC 605. Accordingly, revenue is recognized when all of the following criteria are met:

- persuasive evidence of an arrangement exists;
- delivery has occurred or services have been rendered;
- the seller's price to the buyer is fixed or determinable; and

- collectability is reasonably assured.

Amounts received prior to satisfying the revenue recognition criteria are recognized as deferred revenue in our consolidated balance sheets. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, current portion. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

Multiple Element Arrangements

Determination of Accounting Units

When evaluating multiple element arrangements, we consider whether the deliverables under the arrangement represent separate units of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. In determining the units of accounting, management evaluates certain criteria, including whether the deliverables have standalone value, based on the consideration of the relevant facts and circumstances for each arrangement. The consideration received is allocated among the separate units of accounting using the relative selling price method, and the applicable revenue recognition criteria are applied to each of the separate units. Deliverables are considered separate units of accounting provided that: (i) the delivered item(s) has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. In assessing whether an item has standalone value, we consider factors such as the research, manufacturing, and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, we consider whether the collaboration partner can use the deliverable(s) for their intended purpose without the receipt of the remaining element(s), whether the value of the deliverable is dependent on the undelivered item(s) and whether there are other vendors that can provide the undelivered element(s).

Under multiple element arrangements, options are considered substantive if, at the inception of the arrangement, we are at risk as to whether the collaboration partner will choose to exercise the option. Factors that we consider in evaluating whether an option is substantive include the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the option, the likelihood the option will be exercised, and the cost to exercise the option. When an option is considered substantive, we do not consider the option or item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in the allocable arrangement consideration, assuming the option is not priced at a significant and incremental discount. When an option is not considered substantive, we would consider the option including other deliverables contingent upon the exercise of the option, to be a deliverable at the inception of the arrangement and a corresponding amount would be included in the allocable arrangement consideration. In addition, if the price of the option includes a significant incremental discount, the discount inherent in the option exercise price would be included as a deliverable at the inception of the arrangement.

Allocation of Arrangement Considerations

Arrangement consideration that is fixed or determinable is allocated among the separate units of accounting using the relative selling price method. Then, the applicable revenue recognition criteria in ASC 605-25 are applied to each of the separate units of accounting in determining the appropriate period and pattern of recognition. We determine the selling price of a unit of accounting following the hierarchy of evidence prescribed by ASC 605-25. Accordingly, we determine the estimated selling price for units of accounting within each arrangement using vendor-specific objective evidence, or VSOE, of selling price, if available, third-party evidence, or TPE, of selling price if VSOE is not available, or best estimate of selling price, or BESP, if neither VSOE nor TPE is available. We typically use BESP to estimate the selling price, since we generally do not have VSOE or TPE of selling price for its units of accounting. Determining the BESP for a unit of accounting requires significant judgment. In developing the BESP for a unit of accounting, we consider applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. We validate the BESP for units of accounting by evaluating whether changes in the key assumptions used to determine the BESP will have a significant effect on the allocation of arrangement consideration between multiple units of accounting.

Patterns of Recognition

We recognize arrangement consideration allocated to each unit of accounting when all of the revenue recognition criteria in ASC 605 are satisfied for that particular unit of accounting. We recognize revenue associated with substantive options upon exercise of the option if the underlying license has standalone value from the other deliverables to be provided subsequent to delivery of the license. If the license does not have standalone value, the amounts allocated to the license option will be combined with the related undelivered items as a single unit of accounting.

We recognize the revenue amounts associated with research and development services and other service related deliverables ratably over the associated period of performance. If there is no discernible pattern of performance or objectively measurable performance measures do not exist, then we recognize revenue under the arrangement on a straight-line basis over the period that we expect to complete its performance obligations. If the pattern of performance in which the service is provided to the customer can be determined and objectively measurable performance exists, then we recognize revenue under the arrangement using the proportional performance method. Revenue recognized is limited to the lesser of the cumulative amount of payments received and the cumulative amount of revenue earned, as determined using the straight-line method or proportional performance, as applicable, as of each reporting period.

Recognition of Milestones and Royalties

At the inception of an arrangement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether (i) the consideration is commensurate with either our performance to achieve the milestone or the enhancement of performance to achieve the milestone, (ii) the consideration relates solely to past performance and (iii) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. We evaluate factors such as clinical, regulatory, commercial and other risks that must be overcome to achieve the respective milestone and the level of effort and investment required to achieve the respective milestone in making this assessment. There is considerable judgment involved in determining whether a milestone satisfies all of the criteria required to conclude that a milestone is substantive. In accordance with ASC Topic 605-28, *Revenue Recognition— Milestone Method* (ASC 605-28), clinical and regulatory milestones that are considered substantive, recognized as revenue in their entirety upon successful accomplishment of the milestone, assuming all other revenue recognition criteria are met. Milestones that are not considered substantive are recognized as revenue over the remaining period of performance, assuming all other revenue recognition criteria are met. Revenue from commercial milestones payments are recorded as revenue upon achievement of the milestone, assuming all other recognition criteria are met.

Research and Development Expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued expenses as of each balance sheet date. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include the costs incurred for services performed by our vendors in connection with research and development activities for which we have not yet been invoiced.

We record our expenses related to research and development activities on our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct research and development on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expenses. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid expense accordingly. Non-refundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

Fair Value Measurements—Tranche Rights

Included in the terms of the Series A Preferred Stock Purchase Agreement were certain rights, which we refer to collectively as Tranche Rights, granted to the investors of Series A convertible preferred stock, or Series A convertible preferred stock, issued in February 2013, including the holders of the convertible notes who exchanged their convertible notes. The Tranche Rights obligated the investors in Series A convertible preferred stock to purchase, and us to sell, an additional 10,000,000 shares of Series A convertible preferred stock at $1.00 per share contingent upon the initiation of certain research and development programs and initiation of translational science, which we refer to as Tranche Right I. In addition, the investors were obligated to purchase, and we were obligated to sell, an additional 20,000,000 shares of Series A convertible preferred stock upon the achievement of certain research milestones, which we refer to as Tranche Right II. In addition, the Tranche Rights provided the investors with the ability to purchase these additional shares at their option at any time. The Tranche Rights were transferrable by the investors, subject to approval by the Board.

We concluded that the Tranche Rights met the definition of a freestanding financial instrument, as the Tranche Rights were legally detachable and separately exercisable from the Series A convertible preferred stock. Therefore, we allocated the net proceeds between the Tranche Rights and the Series A convertible preferred stock. Since the Series A convertible preferred stock was contingently redeemable upon the occurrence of a deemed liquidation event, the Tranche Rights are classified as an asset or liability and were initially recorded at fair value. The Tranche Rights are measured at fair value at each reporting period. Since the Tranche Rights were subject to fair value accounting, we allocated the proceeds to the Tranche Rights based on the fair value at the date of issuance with the remaining proceeds being allocated to the Series A convertible preferred stock. The estimated fair value of the Tranche Rights was determined using a probability-weighted present value model that considers the probability of closing a tranche, the estimated future value of Series A convertible preferred stock at each closing and the investment required at each closing. Future values are converted to present value using a discount rate appropriate for probability-adjusted cash flows. Changes to these valuation assumptions as well as our stock's value on the reporting dates can have a significant impact on the fair value of the Tranche Rights. The Tranche Rights were terminated with the closing of the Series A convertible preferred stock financing in April 2015.

Stock-based Compensation

We measure compensation expense for restricted stock and stock options granted to our employees and directors on the date of grant and recognize the corresponding compensation expense of those awards, over the requisite service period, which is generally the vesting period of the respective award. At each reporting date, we are required to evaluate whether the achievement of the performance condition is probable. Compensation expense is recorded over the appropriate service period based on our assessment of accomplishing each performance provision or the occurrence of other events that may have caused the awards to accelerate and vest. We also grant stock-based awards to certain non-employees. Compensation expense for stock-based awards granted to non-employees and directors for non-board-related services is accounted for based on the fair value of such services received or the equity instrument issued, whichever is more reliably measured. We have also granted restricted stock awards that vest in conjunction with certain performance conditions to certain non-employees. The fair value of the non-employee awards is subject to remeasurement at each reporting period until services required under the arrangement are completed, which is the vesting date. We estimate the fair value of the options granted using the Black-Scholes option pricing model.

The Black-Scholes option pricing model requires inputs based on certain subjective assumptions, including (a) the expected stock price volatility, (b) the calculation of expected term of the award, (c) the risk-free interest rate, and (d) expected dividends. Due to the lack of a public market for the trading of our common stock and a lack of company-specific historical and implied volatility data, we have based the estimate of expected volatility on the historical volatility of a representative group of publicly traded companies for which historical information was available. The historical volatility is calculated based on a period of time commensurate with the expected term assumption. We use the simplified method as prescribed by the SEC Staff Accounting Bulletin No. 107, *Share-Based Payment,* to calculate the expected term for options granted to employees and directors as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. For options granted to non-employees, we utilize the contractual term of the arrangement as the basis for the expected term assumption. The risk-free interest rate is based on a treasury instrument whose term is consistent with the

expected term of the stock options. The expected dividend yield is assumed to be zero as we have never paid dividends and do not have current plans to pay any dividends on common stock.

Using the Black-Scholes option pricing model, the weighted average fair value of options granted to employees and directors during the years ended December 31, 2016, 2015 and 2014 was $5.10, $1.70 and $0.48, respectively.

The fair value of options granted to employees and directors during the years ended December 31, 2016, 2015 and 2014 under our 2013 Stock Option and Grant Plan, or 2013 Plan, has been calculated on the date of grant using the following weighted average assumptions:

	Year Ended December 31,		
	2016	2015	2014
Risk-free interest rate	1.4%	1.8%	1.9%
Expected dividend yield	—%	—%	—%
Expected term (in years)	6.1	6.1	6.1
Expected volatility	71.9%	67.0%	70.7%

We recorded stock-based compensation expense for restricted stock grants and stock options as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Total stock-based compensation expense	$ 4,989	$ 1,352	$ 332

In future periods, we expect stock-based compensation expense to increase, due in part to our existing unrecognized stock-based compensation expense and as we grant additional stock-based awards to continue to attract and retain our employees.

Determination of Fair Value of Common Stock on Grant Dates

Due to the absence of an active market for our common stock prior to the commencement of trading of our common stock on the NASDAQ Global Select Market on January 27, 2017 in connection with our IPO, the estimated fair values of our common stock as of the grant dates prior to our IPO were determined using contemporaneous valuations performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, also known as the Practice Aid. Following our IPO, it is no longer necessary for us to estimate the fair value of our common stock in connection with our accounting for stock options or other equity awards, as the fair value of our common stock can be determined by reference to its closing price on The NASDAQ Global Select Market on the date of the applicable grant.

For financial reporting purposes, we performed common stock valuations, with the assistance of a third-party valuation specialist, as of February 7, 2014, June 30, 2014, November 1, 2014, December 31, 2014, March 31, 2015, April 17, 2015, September 30, 2015, December 31, 2015, January 15, 2016, March 31, 2016, June 30, 2016, September 30, 2016, November 30, 2016 and December 31, 2016 which resulted in valuations of our common stock of $0.63, $0.70, $0.74, $1.07, $1.51, $2.36, $4.02, $5.24, $4.06, $4.21, $8.41, $9.56, $10.63 and $10.77 per share, respectively, as of those dates. The February 7, 2014, June 30, 2014, December 31, 2014, and March 31, 2015 valuations were retrospective. The increase in the fair value of our common stock from March 31, 2016 to June 30, 2016 is primarily attributable to an increase in our estimated future value due to the Celgene Collaboration Agreement which was substantially negotiated and probable of execution as of the June 30, 2016 valuation date. In conducting the valuations, we considered all objective and subjective factors that we believed to be relevant for each valuation conducted, including our best estimate of our business condition, prospects and operating performance at each valuation date. Within the valuations performed, a range of factors, assumptions and methodologies were used. The significant factors included:

- the lack of an active public market for our common and our convertible preferred stock;
- the prices of shares of our convertible preferred stock that we had sold to outside investors in arm's length transactions, and the rights, preferences and privileges of that convertible preferred stock relative to our common stock;

- our results of operations, financial position and the status of our research and preclinical development efforts;
- the material risks related to our business;
- our business strategy;
- the market performance of publicly traded companies in the life sciences and biotechnology sectors;
- the likelihood of achieving a liquidity event for the holders of our common stock, such as an initial public offering given prevailing market conditions; and
- any recent contemporaneous valuation of our common stock prepared in accordance with methodologies outlined in the Practice Aid.

Common Stock Valuation Methods

Our contemporaneous and retrospective valuations were prepared in accordance with the guidelines in the Practice Aid, which prescribes several valuation approaches for determining the value of an enterprise, such as the cost, market and income approaches, and various methodologies for allocating the value of an enterprise to its capital structure and specifically the common stock.

Our common stock valuations as of February 7, 2014, June 30, 2014, November 1, 2014, December 31, 2014, March 31, 2015, and April 17, 2015 were prepared using the back-solve method of the option-pricing method, or OPM, which derives the implied equity value for one type of equity security from a contemporaneous transaction involving another type of security.

Our common stock valuations as of September 30, 2015, December 31, 2015, January 15, 2016 and March 31, 2016 were prepared using the hybrid method. The hybrid method is a hybrid between the probability-weighted expected return method, or PWERM, and OPM, estimating the probability-weighted value across multiple scenarios using the OPM to allocate equity value within at least one of those scenarios. Our hybrid model included an OPM scenario and one IPO scenario.

Our common stock valuations as of June 30, 2016, September 30, 2016, November 30, 2016 and December 31, 2016 were prepared using PWERM. Our PWERM model consisted of three scenarios; a scheduled IPO, a delayed IPO or deemed liquidation event.

Option Pricing Method

The OPM treats the rights of the holders of convertible preferred and common stock as equivalent to call options on the value of the enterprise above certain break points of value based upon the liquidation preferences of the holders of convertible preferred stock, as well as their rights to participation and conversion. Under this method, the common stock has value only if the funds available for distribution to the stockholders exceed the value of the liquidation preference(s) at the time of the liquidity event. The OPM uses the Black-Scholes option pricing model. This model defines securities' fair values as functions of the current fair value of a company and uses assumptions, such as the anticipated timing of a potential liquidity event, the estimated applicable risk-free rate, and the estimated volatility of the equity securities.

The OPM back-solve approach was used to estimate enterprise value under the OPM. The OPM back-solve approach uses the OPM to derive the implied equity value for one type of equity security from a contemporaneous sale transaction involving another type of our equity securities. In the OPM, the assumed volatility factor was based on the historical trading volatility of our publicly traded peer companies. At each valuation date, a determination was made by us as to the appropriate volatility to be used, considering such factors as the expected time to a liquidity event and our stage of development.

To derive the fair value of the common stock using the OPM, the proceeds to the common stockholders were calculated based on the preferences and priorities of the convertible preferred stock and common stock. We then applied a discount for lack of marketability to the common stock to account for the lack of access to an active public market.

PWERM

Under the PWERM method the fair value of our common stock is estimated based upon an analysis of future values for our Company, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available as well as

the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock.

Hybrid Model

The hybrid method is a PWERM where the equity value in one of the scenarios is calculated using an OPM. In the hybrid method used by us, two types of future-event scenarios were considered: an IPO and an unspecified liquidity event. The enterprise value for the IPO scenario was determined using the guideline public company, or GPC, method under the market approach. The enterprise value for the unspecified liquidity event scenario was determined using the GPC method or the OPM backsolve method. The relative probability of each type of future-event scenario was determined based on an analysis of market conditions at the time, including then-current IPO valuations of similarly situated companies, and expectations as to the timing and likely prospects of the future-event scenarios.

In our application of the GPC method, we considered preclinical and clinical-stage publicly traded companies that recently completed IPOs as indicators of our estimated future value in an IPO. That future value was discounted back to the valuation date at an appropriate risk-adjusted discount rate. We applied a discount for lack of marketability to the common stock to account for the lack of access to an active public market.

JOBS Act

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company," or EGC, may take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. Thus, an EGC is permitted to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an EGC, we intend to rely on certain of these exemptions, including without limitation, (1) providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act and (2) complying with any requirement that may be adopted by the Public Company Accounting Oversight Board, or PCAOB, regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an EGC until the earlier of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.0 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the date of the completion of our IPO; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission or SEC.

ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk

As of December 31, 2016 and 2015, we had cash and cash equivalents of $44.8 million and $45.2 million, respectively, primarily invested in money market funds consisting of U.S. Treasury obligations. As of December 31, 2016 we had $104.4 million and $108.1 million of short-term investments and long-term investments, respectively. Our short-term investments consist of corporate debt securities and U.S. Treasuries with an original maturity greater than ninety days and less than one year from the balance sheet date. Our long-term investments consist of U.S. Treasuries with maturities of greater than one year that are not expected to be used to fund current operations. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term nature of our cash equivalents and short-term investments and our conservative long-term investment approach, a sudden change in interest rates would not be expected to have material effect on our business, financial condition or results of operations.

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates; however, we have contracted with and may continue to contract with foreign vendors that are located in Europe. Our operations may be subject to fluctuations in foreign currency exchange rates in the future.

Inflation generally affects us by increasing our cost of labor. We do not believe that inflation had a material effect on our business, financial condition or results of operations during the years ended December 31, 2016, 2015 and 2014.

ITEM 8. Financial Statements and Supplementary Data

The financial statements required to be filed pursuant to this Item 8 are appended to this report. An index of those financial statements is found in Item 15 of PART IV of this Annual Report on Form 10-K.

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

None.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities and Exchange Act of 1934 is (1) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our President and Chief Executive Officer, who is our principal executive officer and Chief Financial Officer, who is also our principal financial and accounting officer, to allow timely decisions regarding required disclosure.

As of December 31, 2016, our management, with the participation of our principal executive officer and principal financial and accounting officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities and Exchange Act of 1934). Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our principal executive officer and principal financial and accounting officer have concluded based upon the evaluation described above that, as of December 31, 2016, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our independent registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15(d)-15(f) under the Exchange Act) occurred during the fiscal quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. Other Information

None.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors, including their ages as of March 1, 2017:

Name	Age	Position(s)
Executive Officers:		
Richard Murray, Ph.D.	58	President, Chief Executive Officer and Director
Kim C. Drapkin, CPA	49	Treasurer and Chief Financial Officer
Elizabeth G. Trehu, M.D.	56	Chief Medical Officer
Significant Employees:		
Anna L. Barry, Ph.D., Esq.	46	Secretary and Senior Vice President of Legal
Deborah Law, D. Phil.	52	Chief Scientific Officer
Stephen G. Farrand, Ph.D.	59	Chief Technical Officer
Non-Management Directors:		
Perry A. Karsen(1)(2)(3)	62	Chairman of the Board
Barbara Duncan(1)(3)	52	Director
Cary G. Pfeffer, M.D.(2)(3)	54	Director
J. Duncan Higgons(1)(2)	62	Director
Robert Kamen, Ph.D.	72	Director
Robert Tepper, M.D.	61	Director

(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the nominating and corporate governance committee.

Executive Officers

Richard Murray, Ph.D., has served as our president, chief executive officer and a director on our board of directors since July 2014. Prior to joining Jounce, Dr. Murray served as senior vice president of biologics and vaccines research and development at Merck & Co. from 2009 to 2014, where he had responsibilities for the advancement of biologics and vaccines, including Merck's cancer immunotherapy pipeline. From 2008 to 2009, Dr. Murray served as an advisor to venture capital and life science investors. From 2003 to 2008, he served in a variety of roles at PDL Biopharma Inc., or PDL, initially as vice president of research to executive vice president and chief scientific officer. He also served as a director of PDL from 2007 to 2008. Earlier in his career, Dr. Murray was a co-founder and served as vice president of research at Eos Biotechnology, Inc. from 1998 to 2003. Dr. Murray holds a Ph.D. in microbiology and immunology from the University of North Carolina at Chapel Hill and a B.S. in microbiology from the University of Massachusetts, Amherst.

Kim C. Drapkin, CPA, has served as our chief financial officer since August, 2015, and our treasurer since February 2013. From 2009 to 2015, Ms. Drapkin was the owner of KCD Financial LLC, through which she served as our interim chief financial officer from 2012 to August 2015, and consulted for numerous biotechnology companies. Previously, Ms. Drapkin served as the chief financial officer of Predix Pharmaceuticals holdings, Inc., or Predix, from 2005 to 2006, and, after Predix was acquired by EPIX Pharmaceuticals, Inc., or EPIX, as chief financial officer of EPIX from 2006 to 2009. Earlier in her career, from 1995 to 2005, Ms. Drapkin served in a variety of roles at Millennium Pharmaceuticals, Inc., including as director of finance. Ms. Drapkin began her career at PricewaterhouseCoopers LLP and holds a B.S. in accounting from Babson College.

Elizabeth G. Trehu, M.D., joined Jounce as our chief medical officer in November 2015. Prior to joining Jounce, Dr. Trehu served as the chief medical officer of Promedior, Inc. from 2012 to 2015. Previously, Dr. Trehu served as vice president, product development and medical affairs for Infinity Pharmaceuticals, Inc. from 2010 to 2012. Earlier in her career, Dr. Trehu served in a variety of roles for Genzyme Corporation, including as the vice president and general manager, hematology from 2009 to 2010, vice president and general manager of Clolar from 2008 to 2009 and vice president, global medical affairs of Genzyme Oncology from 2006 to 2008. Previously, Dr. Trehu served from 2002 to 2006 in a variety of positions at Millennium Pharmaceuticals, Inc., including as vice president of

oncology global medical affairs in 2006. Dr. Trehu holds an M.D. from the New York University School of Medicine and an A.B. in English from Princeton University.

Significant Employees

Anna L. Barry, *Ph.D., Esq.*, has served as our senior vice president of legal since December 2015, and as secretary since December 2014. Previously, Dr. Barry served as our vice president of legal affairs from 2014 to 2015. Prior to joining Jounce, Dr. Barry served as senior intellectual property counsel of Five Prime Therapeutics, Inc. from 2011 to 2014. Previously, Dr. Barry served as patent counsel and senior patent counsel of Genentech, Inc. from 2006 to 2011. Dr. Barry began her career at Heller Ehrman LLP. Dr. Barry holds a J.D. from Vanderbilt University Law School, an M.S. and a Ph.D. in biophysical chemistry from Yale University and a B.S. in chemistry from Georgia Institute of Technology.

Deborah Law, D. Phil., has served as our chief scientific officer since January 2015. Prior to joining Jounce, Dr. Law served as the vice president of immunology, oncology and immunomodulators at Merck & Co., Inc. from 2013 to 2014 and the vice president of biologics discovery from 2010 to 2013. Earlier in her career, Dr. Law served as the chief scientific officer of Ablynx NV from 2009 to 2010. Previously, Dr. Law served in a number of roles at PDL Biopharma, Inc., including vice president of research from 2006 to 2009, senior director of target validation from 2005 to 2006 and director of target validation from 2003 to 2005. Dr. Law received her D. Phil. in immunology from Oxford University, and holds a B.Sc. in immunology from University of Glasgow.

Stephen G. Farrand, Ph.D., has served as our chief technical officer since September 2016. Prior to joining Jounce, Dr. Farrand served as the senior vice president of global manufacturing for NantKwest, Inc. from 2015 to 2016. From 2009 to 2015, Dr. Farrand served as vice president bioprocess development of Merck & Co. From 1999 to 2009, Dr. Farrand served in a number of roles for Schering-Plough Corporation, including vice president global biological and sterile product development. Dr. Farrand received his Ph.D.in biochemistry and microbiology from the University of Leicester, and holds a B.Sc. in microbiology from the University of Bath.

Non-Management Directors

Perry A. Karsen, has served as a director on our board of directors since January 2016, and as the chairman of our board of directors since April 2016. Mr. Karsen is a venture partner with Third Rock Ventures, LLC, which he joined in 2016. Previously, Mr. Karsen was the chief executive officer of the Celgene Cellular Therapeutics division of Celgene Corporation, or Celgene, from 2013 until his retirement in 2015. Mr. Karsen served as executive vice president and chief operations officer of Celgene from 2010 to 2013, and as senior vice president and head of worldwide business development of Celgene from 2004 to 2009. Mr. Karsen was chief executive officer of Pearl Therapeutics Inc., from 2009 to 2010. Earlier in his career, Mr. Karsen held executive positions at Human Genome Sciences, Inc., Bristol-Myers Squibb Co., Genentech, Inc. and Abbott Laboratories. He is a member of the boards of directors of publicly traded life sciences companies Intellia Therapeutics, Inc. where he serves as chairman of the board, OncoMed Pharmaceuticals, Inc. and Voyager Therapeutics, Inc. Mr. Karsen received a Masters of Management from Northwestern University's Kellogg Graduate School of Management, a Masters of Arts in Teaching of Biology from Duke University and a B.S. in Biological Sciences from the University of Illinois, Urbana-Champaign. We believe Mr. Karsen is qualified to serve on our board of directors because of his executive leadership experience, experience as an executive pharmaceutical companies and membership on boards of directors of other public companies.

Barbara Duncan has served as a director on our board of directors since May 2016. Ms. Duncan served as the chief financial officer of Intercept Pharmaceuticals Inc. from 2009 to 2016 and as treasurer from 2010 to 2016. From 2001 to 2009, Ms. Duncan served as chief financial officer and then chief executive officer at DOV Pharmaceutical, Inc. Previously, Ms. Duncan served as a vice president of Lehman Brothers Inc. in its corporate finance division from 1998 to 2001. She serves on the board of directors of Adaptimmune Therapeutics plc, Aevi Genomic Medicine, Inc., Innoviva, Inc. and ObsEva SA and the boards of directors of other private companies. Ms. Duncan holds an M.B.A. from the Wharton School, University of Pennsylvania and a B.S. degree from Louisiana State University. We believe Ms. Duncan is qualified to serve on our board of directors because of her experience in the biopharmaceutical industry, her experience in the financial sector and membership on boards of directors of other public and private companies.

Cary G. Pfeffer, M.D., has served as a director on our board of directors since February 2013. Previously, Dr. Pfeffer served as the chairman of our board from 2014 to 2016, and as our interim chief executive officer from 2013 to 2014. Dr. Pfeffer is a partner at Third Rock Ventures, LLC, which he joined in 2007. Dr. Pfeffer was the interim chief executive officer of Neon Therapeutics, Inc. from 2015 to 2016. Dr. Pfeffer served at Biogen Inc. from

1992 to 2002 in a variety of domestic and international executive management roles. Dr. Pfeffer serves on the boards of directors for Ablexis, LLC, Edimer Pharmaceuticals, Inc., and Neon Therapeutics, Inc. where he serves as chairman of the board. Dr. Pfeffer received an M.B.A. from the Wharton School, an M.D. from the University of Pennsylvania School of Medicine and a B.A. in biochemistry from Columbia University. We believe that Dr. Pfeffer is qualified to serve on our board of directors because of his experience in the venture capital industry, life sciences industry, membership of various other boards of directors, his prior service as our president and chief executive officer, and his leadership and management experience.

J. Duncan Higgons has served as a director on our board of directors since November 2015. Mr. Higgons recently served as chief operating officer of Agios Therapeutics, Inc., or Agios, from 2009 to 2016. Prior to joining Agios, Mr. Higgons served as executive vice-president, and interim president and chief executive officer at Archemix Corporation, or Archemix, from 2006 to 2009. Prior to Archemix, Mr. Higgons served as the chief commercial officer at TransForm Pharmaceuticals, Inc., a privately-held biotechnology company, which was acquired by Johnson & Johnson Company. Mr. Higgons holds a B.Sc. in Mathematics from King's College University of London and a M.Sc. in Economics from London Business School. We believe that Mr. Higgons is qualified to serve on our board of directors due to his leadership and management experience.

Robert Kamen, Ph.D., has served as a member of our board of directors since June 2013. Dr. Kamen also served as our interim chief technology officer from 2013 to 2015. Dr. Kamen is an entrepreneur in residence at Third Rock Ventures, LLC, which he joined in 2010. From 2005 to 2010, Dr. Kamen served as the chairman of BioAssets Development Corporation. From 2002 to 2008, Dr. Kamen served as executive-in-residence at Oxford Bioscience Partners. From 2001 to 2002 he served as president of Abbot Laboratories' Abbot Bioresearch Center and as a member of the Abbot Pharma Executive Management Committee. From 1991 to 2001, he served as the president of BASF Bioresearch Corporation. Dr. Kamen serves on the boards of directors for numerous companies, including BioAssets Development Corporation, Inc., EpimAb Biotherapeutics, Inc., Harbour Antibodies BV, Lycera Corporation, Opsonic Therapeutics Inc. and Neon Therapeutics, Inc. Dr. Kamen holds a Ph.D. in biochemistry and molecular biology from Harvard University and a B.S. in biophysics from Amherst College. We believe that Dr. Kamen is qualified to serve on our board of directors because of his experience in the venture capital and life sciences industries, membership of various other boards of directors, and his leadership and management experience.

Robert Tepper, M.D., has served as a member of our board of directors since February 2013. Previously, Dr. Tepper served as our interim chief scientific officer from 2013 to 2015. Since 2007, Dr. Tepper has served as a partner at Third Rock Ventures, LLC, which he co-founded in 2007. Since 2014, Dr. Tepper is currently the interim chief scientific officer of Neon Therapeutics, Inc. Prior to joining Third Rock Ventures, LLC, Dr. Tepper held multiple positions at Millennium Pharmaceuticals, Inc., including service as president of research and development from 2002 to 2007, executive vice president of discovery from 2001 to 2002 and chief scientific officer from 1999 to 2002. Dr. Tepper serves on the boards of directors for numerous companies, including Alcresta, Inc., Allena Pharmaceuticals, Inc., Constellation Pharmaceuticals, Inc., Kala Pharmaceuticals, Inc., and Neon Therapeutics, Inc. Previously, Dr. Tepper served on the boards of Bluebird Bio, Inc. and Alnara Pharmaceuticals, Inc. Dr. Tepper received an M.D. from Harvard Medical School and an A.B. in biochemistry from Princeton University. We believe that Dr. Tepper is qualified to serve on our board of directors due to his experience in the venture capital industry, particularly with biotech and pharmaceutical companies, combined with his experience building and operating research and development operations, on the boards of public and private life sciences companies and as faculty and advisory board members of several healthcare institutions.

Family Relationships

There are no family relationships among any of our directors or executive officers.

Audit Committee

Barbara Duncan, J. Duncan Higgons and Perry A. Karsen serve on the audit committee, which is chaired by Ms. Duncan. Our board of directors has determined that Ms. Duncan, Mr. Higgons and Mr. Karsen are “independent” for audit committee purposes as that term is defined in the rules of the SEC and the applicable NASDAQ rules, and each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated Ms. Duncan as an “audit committee financial expert,” as defined under the applicable rules of the SEC. The audit committee’s responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;

- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending based upon the audit committee's review and discussions with management and our independent registered public accounting firm whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers and beneficial owners of more than 10% of our common stock to file reports of holdings and transactions in our common stock and other securities of the Company with the Securities Exchange Commission. Our directors, executive officers and beneficial owners of more than 10% of our common stock did not become subject to such Section 16(a) reporting requirements until January 26, 2017, after the completion of our fiscal year ended December 31, 2016.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the code is posted on the Corporate Governance section of our website, which is located at www.jouncetx.com. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

ITEM 11. Executive Compensation

Executive Compensation Overview

Historically, our executive compensation program has reflected our growth and development-oriented corporate culture. To date, the compensation of our president and chief executive officer and our other executive officers identified in the 2016 Summary Compensation Table below, who we refer to as the named executive officers, has consisted of a combination of base salary, bonuses and long-term incentive compensation in the form of stock options. Our named executive officers, like all full-time employees, are eligible to participate in our health and welfare benefit plans.

2016 Summary Compensation Table

The following table presents information regarding the total compensation awarded to, earned by, and paid to our named executive officers for services rendered to us in all capacities for the years indicated.

	Year	Salary ($)	Bonus ($)	Option awards ($)(1)	All other compensation ($)	Total ($)
Richard Murray, Ph.D.,	2016	445,500	196,100 (2)	1,105,289	258 (3)	1,747,147
President and Chief Executive Officer	2015	432,500	319,700 (4)	383,279	114	1,135,593
Kim C. Drapkin, CPA,	2016	303,500	105,200 (2)	466,455	90 (3)	875,245
Treasurer and Chief Financial Officer						
Elizabeth G. Trehu, M.D.,	2016	370,000	164,000 (2)	302,652	258 (3)	836,910
Chief Medical Officer	2015	59,058 (5)	100,000 (6)	672,537	—	831,595

(1) Amounts reflect the grant date fair value of option awards in accordance with Financial Accounting Standards Board, Accounting Standards Codification 718, or ASC 718. Such grant-date fair value does not take into account any estimated forfeitures related to service-vesting conditions. For information regarding assumptions underlying the valuation of option awards, see Note 11 to our financial statements for the year ended December 31, 2016. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon vesting of the applicable awards.

(2) The amounts reported represent bonuses based upon the achievement of Company and individual performance objectives for the year ended December 31, 2016, which were paid in February 2017. For Ms. Drapkin, the amount also includes a discretionary bonus of $2,961, which was paid in November 2016.

(3) The amounts reported represent life insurance premiums paid by us.

(4) The amounts reported represents a bonus based upon the achievement of Company and individual performance objectives for the year ended December 31, 2015, which was paid in February 2016.

(5) Dr. Trehu joined us in November 2015. Her annualized base salary for 2015 was $370,000.

(6) The amount reported represents a sign-on bonus, which was paid in 2015 pursuant to the terms of Dr. Trehu's employment agreement.

Narrative Disclosure to Summary Compensation Table

We have entered into employment agreements with each of our named executive officers. Except as noted below, these employment agreements provide for "at will" employment.

Dr. Richard Murray

Dr. Murray's current base salary is $500,000, which is subject to review and adjustment, and he is eligible to earn an annual cash incentive bonus targeted at 50% of his base salary. Dr. Murray is also eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans.

Dr. Murray's employment agreement provides that, in the event that his employment is terminated by us for any reason other than for "cause," death or "disability" or by Dr. Murray for "good reason" (each as defined in his employment agreement), subject to the execution and effectiveness of a separation agreement and release, he will be entitled to receive (i) an amount equal to the sum of (A) 12 months of his then current base salary plus (B) a pro-rated portion of his target bonus, payable in substantially equal monthly installments over 12 months commencing within 60 days of the date of termination, and (ii) if Dr. Murray is participating in our group health plan immediately prior to his termination, a monthly cash payment until the earlier of 12 months following termination or the end of Dr. Murray's COBRA health continuation period in an amount equal to the amount of the monthly employer contribution that we would have made to provide health insurance to Dr. Murray had he remained employed with us. In lieu of the payments and benefits described above, in the event that Dr. Murray's employment is terminated by us for any reason other than for cause, death or disability or Dr. Murray resigns for good reason, in either case within 12 months following a "sale event" (as defined in his employment agreement), subject to the execution and effectiveness of a separation agreement and release, he will be entitled to receive (i) a lump sum cash payment equal to the sum of (A) 18 months of his then current base salary (or his base salary in effect immediately prior to

the sale event, if higher) plus (B) a bonus calculated by multiplying Dr. Murray's target bonus percentage by 18 months of his base salary, (ii) if Dr. Murray is participating in our group health plan immediately prior to his termination, a lump sum cash payment in an amount equal to the monthly employer contribution that we would have made to provide health insurance to him had he remained employed with us for 18 months following his date of termination and (iii) full acceleration of all time-based equity awards held by Dr. Murray.

In addition, Dr. Murray has entered into a non-competition, non-solicitation, confidentiality and assignment agreement that contains, among other things, non-competition and non-solicitation provisions that apply during the term of Dr. Murray's employment and for 12 months thereafter.

Kim C. Drapkin

Ms. Drapkin's current base salary is $325,000, which is subject to review and adjustment, and she is eligible to earn an annual cash incentive bonus targeted at 35% of her base salary. Ms. Drapkin is also eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans.

Ms. Drapkin's employment agreement provides that, in the event that her employment is terminated by us for any reason other than for "cause," death or "disability" (each as defined in her employment agreement), subject to the execution and effectiveness of a separation agreement and release, she will be entitled to receive (i) an amount equal to nine months of base salary, payable in substantially equal installments over nine months following the date of termination, and (ii) if Ms. Drapkin is participating in our group health plan immediately prior to her termination, a monthly cash payment until the earlier of nine months following termination or the end of Ms. Drapkin's COBRA health continuation period in an amount equal to the amount of the monthly employer contribution that we would have made to provide health insurance to Ms. Drapkin had she remained employed with us. In lieu of the payments and benefits described above, in the event that Ms. Drapkin's employment is terminated by us for any reason other than for cause, death or disability or Ms. Drapkin resigns for "good reason" (as defined in her employment agreement), in either case within 12 months following a "sale event" (as defined in her employment agreement), subject to the execution and effectiveness of a separation agreement and release, she will be entitled to receive (i) a lump sum cash payment equal to the sum of (A) 12 months of her then current base salary (or her base salary in effect immediately prior to the sale event, if higher) plus (B) her target bonus, (ii) if Ms. Drapkin is participating in our group health plan immediately prior to her termination, a lump sum cash payment in an amount equal to the amount of the monthly employer contribution that we would have made to provide health insurance to her had she remained employed with us for 12 months following her date of termination and (iii) full acceleration of all time-based equity awards held by Ms. Drapkin.

In addition, Ms. Drapkin has entered into a non-competition, non-solicitation, confidentiality and assignment agreement that contains, among other things, non-competition and non-solicitation provisions that apply during the term of Ms. Drapkin's employment and for 12 months thereafter.

Dr. Elizabeth G. Trehu

Dr. Trehu's current base salary is $385,200, which is subject to review and adjustment, and she is eligible to earn an annual cash incentive bonus targeted at 35% of her base salary. Dr. Trehu is also eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans. Dr. Trehu's employment agreement provides that, in the event that her employment is terminated by us for any reason other than "cause," death or "disability" (each as defined in her employment agreement), subject to the execution and effectiveness of a separation agreement and release, she will be entitled to receive (i) an amount equal to nine months of base salary, payable in substantially equal installments over nine months following the date of termination, and (ii) if Dr. Trehu is participating in our group health plan immediately prior to her termination, a monthly cash payment until the earlier of nine months following termination or the end of Dr. Trehu's COBRA health continuation period in an amount equal to the amount of the monthly employer contribution that we would have made to provide health insurance to Dr. Trehu had she remained employed with us. In lieu of the payments and benefits described above, in the event that Dr. Trehu's employment is terminated by us for any reason other than cause, death or disability or Dr. Trehu resigns for "good reason" (as defined in her employment agreement), in either case within 12 months following a "sale event" (as defined in her employment agreement), subject to the execution and effectiveness of a separation agreement and release, she will be entitled to receive (i) a lump sum cash payment equal to the sum of (A) 12 months of her then current base salary (or her base salary in effect immediately prior to the sale event, if higher) plus (B) her target bonus, (ii) if Dr. Trehu is participating in our group health plan immediately prior to her termination, a lump sum cash payment in an amount equal to the amount of the monthly employer contribution that we would have made to provide health insurance to her had she remained employed with us for 12 months following her date of termination and (iii) full acceleration of all time-based equity awards held by Dr. Trehu.

In addition, Dr. Trehu has entered into a non-competition, non-solicitation, confidentiality and assignment agreement that contains, among other things, non-competition and non-solicitation provisions that apply during the term of Dr. Trehu's employment and for 12 months thereafter.

Outstanding Equity Awards at 2016 Fiscal Year-End

The following table sets forth information concerning outstanding equity awards held by each of our named executive officers as of December 31, 2016. All equity awards set forth in the table below were granted under our 2013 Stock Option and Grant Plan, or the 2013 Plan.

	Option awards				
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable		Option exercise price	Option expiration date
Richard Murray, Ph.D.	537,609	352,226	(1)	$ 0.48	6/26/2024
	51,860	114,093	(2)	$ 2.36	7/15/2025
	13,550	40,650	(3)	$ 4.02	12/8/2025
	—	182,926	(4)	$ 9.56	10/24/2026
Kim C. Drapkin, CPA	6,775	—	(5)	$ 0.48	1/27/2024
	6,775	—	(6)	$ 0.74	1/12/2025
	70,692	155,522	(7)	$ 2.36	8/25/2025
	2,032	6,097	(4)	$ 4.02	12/8/2025
	—	77,235	(4)	$ 9.56	10/24/2026
Elizabeth G. Trehu, M.D.	62,837	188,512	(8)	$ 4.02	11/12/2025
	3,387	10,162	(4)	$ 4.02	12/8/2025
	—	50,135	(4)	$ 9.56	10/24/2026

(1) The shares underlying this stock option vest as follows: 25% of the shares vested on July 14, 2015 and the remainder of the shares vest in 36 equal monthly installments thereafter.

(2) The shares underlying this option vest in equal quarterly installments over four years from July 1, 2015.

(3) The shares underlying this option vest in equal quarterly installments over four years from December 9, 2015.

(4) The shares underlying these options vest in equal quarterly installments over four years from the grant date.

(5) The shares underlying these options vest in equal monthly installments over one year from October 9, 2013.

(6) The shares underlying these options vest in equal monthly installments over one year from October 9, 2014.

(7) The shares underlying this option vest as follows: 25% of the shares vest on the first anniversary of the date of grant and the remainder of the shares vest in 12 equal quarterly installments thereafter.

(8) The shares underlying this option vest as follows: 25% of the shares vest on the first anniversary of November 3, 2015 and the remainder of the shares vest in 12 equal quarterly installments thereafter.

Employee Benefit and Equity Compensation Plans

2017 Stock Option and Incentive Plan

Our 2017 Stock Option and Incentive Plan, or our 2017 Plan, was adopted by our board of directors in January 2017, approved by our stockholders in January 2017 and became effective on the date immediately prior to the date on which the registration statement of which our prospectus was declared effective by the SEC. Our 2017 Plan replaced our 2013 Plan as our board of directors has determined not to make additional awards under that plan following the consummation of our initial public offering, or IPO. Our 2017 Plan allows the compensation committee to make equity-based incentive awards to our officers, employees, directors and other key persons (including consultants).

We have initially reserved 1,510,000 shares of our common stock, or the Initial Limit, for the issuance of awards under our 2017 Plan, plus the shares of common stock remaining available for issuance under our 2013 Plan. This limit is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. Our 2017 Plan provides that the number of shares reserved and available for issuance thereunder will automatically increase on January 1, 2018 and each January 1 thereafter by 4% of the number of shares of common stock outstanding on the immediately preceding December 31 or such lesser number of shares determined by the compensation committee, or the Annual Increase.

The shares we issue under our 2017 Plan are authorized but unissued shares, or shares that we reacquire. The shares of common stock underlying any awards that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock, expire or are otherwise terminated (other than by exercise) under our 2017 Plan and our 2013 Plan are added back to the shares of common stock available for issuance under our 2017 Plan.

Stock options and stock appreciation rights with respect to no more than 1,510,000 shares of common stock may be granted to any one individual in any one calendar year. The maximum number of shares that may be issued as incentive stock options may not exceed 1,510,000 shares, cumulatively increased on January 1, 2018 and on each January 1 thereafter by the lesser of the Annual Increase, or 1,510,000 shares. The grant date fair value of all awards made under our 2017 Plan and all other cash compensation paid by us to any non-employee director in any calendar year shall not exceed $1,000,000.

Our 2017 Plan is administered by our compensation committee. Our compensation committee has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of our 2017 Plan. Persons eligible to participate in our 2017 Plan are those full or part-time officers, employees, non-employee directors, and other key persons (including consultants) as selected from time to time by our compensation committee in its discretion.

Our 2017 Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The option exercise price of each option is determined by our compensation committee but may not be less than 100% of the fair market value of our common stock on the date of grant. The term of each option is fixed by our compensation committee and may not exceed ten years from the date of grant. Our compensation committee will determine at what time or times each option may be exercised.

Our compensation committee may award stock appreciation rights subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock equal to the value of the appreciation in our stock price over the exercise price. The exercise price may not be less than 100% of the fair market value of our common stock on the date of grant. The term of each stock appreciation right is fixed by our compensation committee and may not exceed ten years from the date of grant. Our compensation committee will determine at what time or times each stock appreciation right may be exercised.

Our compensation committee may award restricted shares of common stock and restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified vesting period. Our compensation committee may also grant shares of common stock that are free from any restrictions under our 2017 Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

Our compensation committee may grant performance share awards to participants that entitle the recipient to receive awards of common stock upon the achievement of certain performance goals and such other conditions as our compensation committee may determine. Our compensation committee may grant dividend equivalent rights to participants that entitle the recipient to receive credits for dividends that would be paid if the recipient had held a specified number of shares of common stock.

Our compensation committee may grant cash bonuses under our 2017 Plan to participants, subject to the achievement of certain performance goals.

Our compensation committee may grant awards of restricted stock, restricted stock units, performance share awards or cash-based awards under our 2017 Plan that are intended to qualify as "performance-based compensation" under Section 162(m) of the Code. Such awards will only vest or become payable upon the attainment of performance goals that are established by our compensation committee and related to one or more performance criteria. The performance criteria that could be used with respect to any such awards include: total stockholder return, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation and/or amortization), changes in the market price of our common stock, economic value-added, funds from operations or similar measure, sales or revenue, development, clinical, regulatory or commercial milestones, acquisitions or strategic transactions, including licenses, collaborations, joint ventures, or promotion arrangements, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, return on sales, gross or net profit

levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of our common stock, sales or market shares and number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. From and after the time that we become subject to Section 162(m) of the Code, the maximum award that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code that may be made to certain of our officers during any one calendar year period is 948,500 shares of common stock with respect to a share-based award and $2,500,000 with respect to a cash-based award.

Our 2017 Plan provides that upon the effectiveness of a "sale event," as defined in our 2017 Plan, an acquirer or successor entity may assume, continue or substitute outstanding awards under our 2017 Plan. To the extent that awards granted under our 2017 Plan are not assumed or continued or substituted by the successor entity, except as may be otherwise provided in the relevant award certificate, all awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the sale event, and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in connection with a sale event in the compensation committee's discretion or to the extent specified in the relevant award certificate. Upon the effective time of the sale event, all outstanding awards granted under our 2017 Plan shall terminate. In the event of such termination, individuals holding options and stock appreciation rights are permitted to exercise such options and stock appreciation rights (to the extent exercisable) within a specified period of time prior to the sale event. In addition, in connection with the termination of our 2017 Plan upon a sale event, we may make or provide for a payment, in cash or in kind, to participants holding vested and exercisable options and stock appreciation rights equal to the difference between the per share cash consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights and we may make or provide for a payment, in cash or in kind, to participants holding other vested awards.

Our board of directors may amend or discontinue our 2017 Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to our 2017 Plan require the approval of our stockholders.

No awards may be granted under our 2017 Plan after the date that is ten years from the effective date of our 2017 Plan. No awards under our 2017 Plan have been made prior to the date hereof.

2013 Stock Option and Grant Plan

Our 2013 Plan was approved by our board of directors and our stockholders on February 6, 2013 and was most recently amended in September 2016. Under our 2013 Plan, we have reserved for issuance an aggregate of 5,141,257 shares of our common stock, which number is subject to adjustment in the event of a reorganization, recapitalization, stock dividend, stock split or other similar change in our capital stock.

The shares we issue under our 2013 Plan are authorized but unissued shares, or shares we reacquire. The shares of common stock underlying any awards that are forfeited, cancelled, reacquired by us prior to vesting, satisfied without the issuance of common stock or otherwise terminated (other than by exercise) under our 2013 Plan are currently added to the shares of common stock available for issuance under our 2013 Plan. Following our IPO, these shares were added to the shares available under our 2017 Plan.

Our board of directors has acted as administrator of our 2013 Plan. The administrator has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, and to determine the specific terms and conditions of each award, subject to the provisions of our 2013 Plan. Persons eligible to participate in our 2013 Plan are our full or part-time officers, employees, directors, consultants and other key persons as selected from time to time by the administrator in its discretion.

Our 2013 Plan permits the granting of (1) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and (2) options that do not so qualify. The option exercise price of each option is determined by the administrator but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option is fixed by the administrator and may not exceed ten years from the date of grant. The administrator determines at what time or times each option may be exercised. In addition, our 2013 Plan permits the granting of restricted shares of common stock, restricted stock units and unrestricted stock.

Our 2013 Plan provides that upon the occurrence of a "sale event," as defined in our 2013 Plan, all outstanding stock options will terminate at the effective time of such sale event, unless the parties to the sale event agree that such awards will be assumed or continued by the successor entity. In the event of a termination of our 2013 Plan and all options issued thereunder in connection with a sale event, optionees will be provided an opportunity to

exercise options that are then exercisable or will become exercisable as of the effective time of the sale event prior to the consummation of the sale event. In addition, we have the right to provide for cash payment to holders of options, in exchange for the cancellation thereof, in an amount per share equal to the difference between the value of the consideration payable per share of common stock in the sale event and the per share exercise price of such options. In the event of and subject to the consummation of a sale event, restricted stock and restricted stock units (other than those becoming vested as a result of the sale event) will be forfeited immediately prior to the effective time of a sale event unless such awards are assumed or continued by the successor entity. In the event that shares of restricted stock are forfeited in connection with a sale event, such shares of restricted stock shall be repurchased at a price per share equal to the lower of the original per share purchase price and the fair market value of such shares. We have the right to provide for cash payment to holders of restricted stock or restricted stock units, in exchange for the cancellation thereof, in an amount per share equal to the value of the consideration payable per share of common stock in the sale event.

No awards may be granted under our 2013 Plan after the date that is ten years from the date our 2013 Plan was adopted by the board of directors. Our board of directors has determined not to make any further awards under our 2013 Plan following the closing of our IPO.

2017 Employee Stock Purchase Plan

Our 2017 Employee Stock Purchase Plan, or our ESPP, was adopted by our board of directors in January 2017, approved by our stockholders in January 2017 and became effective on the date immediately prior to the date on which the registration statement of which our prospectus was declared effective by the SEC. Our ESPP initially reserves and authorizes the issuance of up to a total of 302,000 shares of common stock to participating employees. Our ESPP provides that the number of shares reserved and available for issuance will automatically increase on each January 1, beginning on January 1, 2018 and ending on January 1, 2027, by the lesser of (i) 603,000 shares of common stock, (ii) 1% of the outstanding shares of common stock on the immediately preceding December 31 or (iii) such lesser number of shares as determined by the administrator of our ESPP. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

All employees whose customary employment is for more than 20 hours a week are eligible to participate in our ESPP. Any employee who owns five percent or more of the voting power or value of our shares of common stock is not eligible to purchase shares under our ESPP.

We will make one or more offerings each year to our employees to purchase shares under our ESPP. Offerings will usually begin on each May 1 and November 1 and will continue for six-month periods, referred to as offering periods. Each eligible employee may elect to participate in any offering by submitting an enrollment form at least 15 days before the relevant offering date.

Each employee who is a participant in our ESPP may purchase shares by authorizing payroll deductions of up to 15% of his or her eligible compensation during an offering period. Unless the participating employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to purchase shares of common stock on the last business day of the offering period at a price equal to 85% of the fair market value of the shares on the first business day or the last business day of the offering period, whichever is lower, provided that no more than 1,335 shares of common stock may be purchased by any one employee during each offering period. Under applicable tax rules, an employee may purchase no more than $25,000 worth of shares of common stock, valued at the start of the purchase period, under our ESPP in any calendar year.

The accumulated payroll deductions of any employee who is not a participant on the last day of an offering period will be refunded. An employee's rights under our ESPP terminate upon voluntary withdrawal from the plan or when the employee ceases employment with us for any reason.

Our ESPP may be terminated or amended by our board of directors at any time. An amendment that increases the number of shares of common stock authorized under our ESPP and certain other amendments require the approval of our stockholders.

Senior Executive Incentive Bonus Plan

In December 2016, our board of directors adopted the Senior Executive Cash Incentive Bonus Plan, or the Bonus Plan. Our Bonus Plan provides for bonus payments based upon the attainment of performance targets established by our compensation committee. The payment targets will be related to financial and operational measures or objectives with respect to our Company, or the Corporate Performance Goals, as well as individual performance objectives.

Our compensation committee may select Corporate Performance Goals from among the following: cash flow (including, but not limited to, operating cash flow and free cash flow); revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); changes in the market price of our common stock; economic value-added; development, clinical, regulatory or commercial milestones; acquisitions or strategic transactions; operating income (loss); return on capital, assets, equity, or investment; stockholder returns; return on sales; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share of our common stock; bookings, new bookings or renewals; sales or market shares; number of customers; number of new customers or customer references; operating income and/or net annual recurring revenue, any of which may be measured in absolute terms, as compared to any incremental increase, in terms of growth, as compared to results of a peer group, against the market as a whole, compared to applicable market indices and/or measured on a pre-tax or post-tax basis.

Each executive officer who is selected to participate in our Bonus Plan will have a target bonus opportunity set for each performance period. The bonus formulas will be adopted in each performance period by the compensation committee and communicated to each executive. The Corporate Performance Goals will be measured at the end of each performance period after our financial reports have been published. If the Corporate Performance Goals and individual performance objectives are met, payments will be made as soon as practicable following the end of each performance period. Subject to the rights contained in any agreement between the executive officer and us, an executive officer must be employed by us on the bonus payment date to be eligible to receive a bonus payment. Our Bonus Plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion.

401(k) Plan

We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax-advantaged basis. All participants' interests in their contributions are 100% vested when contributed. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The retirement plan is intended to qualify under Section 401(a) of the Code.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from the director or officer. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

Director Compensation

Non-Employee Director Compensation Policy

Our board of directors has adopted a non-employee director compensation policy, effective as of the completion of our IPO, which is designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of our IPO, as set forth below:

		Annual Retainer
Board of Directors:		
All non-employee members	$	35,000
Non-executive chairperson	$	30,000
Audit Committee:		
Members	$	7,500
Additional retainer for chair	$	7,500
Compensation Committee:		
Members	$	5,000
Additional retainer for chair	$	5,000
Nominating and Corporate Governance Committee:		
Members	$	4,000
Additional retainer for chair	$	4,000

Upon his or her election to the board of directors, each new non-employee director will receive an initial, one-time equity award of options to purchase 27,100 shares of our common stock, which will vest in equal quarterly installments over three years, subject to continued service as a member of the board of directors. In addition, each continuing non-employee member of the board will receive, at the time of the Company's annual meeting, an annual equity grant of options to purchase 13,550 shares of our common stock, which will vest in full upon the earlier of the first anniversary of the date of grant or the date of the next annual meeting of the Company's stockholders, subject to continued service as a member of the board of directors through such date. Each of the foregoing grants will vest in full upon the death or disability of the applicable director or upon a change in control of the Company. In addition, any stock options awarded to non-employee directors pursuant to the non-employee director compensation policy will be exercisable until the earlier of one year following the termination of the director's service on the board of directors or the original expiration date of the option.

Director Compensation Table

The following table presents the total compensation for each person who served as a non-employee member of our board of directors and received compensation for such service during the year ended December 31, 2016. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2016. We reimburse non-employee members of our board of directors for reasonable travel expenses. Richard Murray, our president and chief executive officer, did not receive any compensation for his service as a member of our board of directors during 2016. Dr. Murray's compensation for service as an employee for fiscal year 2016 is presented above in the "2016 Summary Compensation Table."

Name	Fees earned or paid in cash	Option awards	Total
Robert Kamen, Ph.D.(1)	$ 20,000	$ 65,521	$ 85,521
J. Duncan Higgons(2)	$ 25,000	$ 65,521	$ 90,521
Perry A. Karsen	$ 35,000	$ 286,068	$ 321,068
Barbara Duncan	$ 16,667	$ 199,468	$ 216,135

(1) Pursuant to a letter agreement with us, Dr. Kamen was paid an annual cash retainer of $20,000 for his service on the board of directors. As of December 31, 2016, Dr. Kamen held an option to purchase 10,840 shares of our common stock, no portion of which was vested as of such date, and 3,387 unvested shares of restricted stock.

(2) Pursuant to a letter agreement with us, Mr. Higgons was paid an annual cash retainer of $25,000 for his service on the board of directors. As of December 31, 2016, Mr. Higgons held options to purchase 34,010 shares of our common stock, 5,792 shares of which were vested as of such date, and 20,325 unvested shares of restricted stock.

(3) Pursuant to a letter agreement with us, Mr. Karsen was paid an annual retainer of $35,000 for his service on the board of directors. Mr. Karsen joined the board of directors in January 2016. As of December 31, 2016, Mr. Karsen held options to purchase 92,140 shares of our common stock, 14,227 of which shares were vested as of such date.

(4) Pursuant to a letter agreement with us, Ms. Duncan is paid an annual retainer of $25,000 for her service on the board of directors. Ms. Duncan joined the board of directors in May 2016. As of December 31, 2016, Ms. Duncan held options to purchase 61,111 shares of our common stock, 6,283 of which shares were vested as of such date.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Report of the Compensation Committee of the Board of Directors

The information contained in this compensation committee report shall not be deemed to be (1) “soliciting material,” (2) “filed” with the SEC, (3) subject to Regulations 14A or 14C of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or (4) subject to the liabilities of Section 18 of the Exchange Act. No portion of this compensation committee report shall be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended (the “Securities Act”) or the Exchange Act, through any general statement incorporating by reference in its entirety the Annual Report on Form 10-K in which this report appears, except to the extent that Jounce Therapeutics, Inc. specifically incorporates this report or a portion of it by reference. In addition, this report shall not be deemed filed under either the Securities Act or the Exchange Act.

The compensation committee has reviewed and discussed the section captioned “Executive Compensation” with management. Based on such review and discussions, the compensation committee recommended to the board of directors that this “Executive Compensation” section be included in this Annual Report.

Item 12. Security Ownership of Certain of Beneficial Owners and Management and Related Stockholder Matters

The following table sets forth certain information known to us regarding beneficial ownership of our capital stock as of March 1, 2017, as adjusted to reflect the sale of common stock offered by us in our IPO, for:

- each person or group of affiliated persons known by us to be the beneficial owner of more than five percent of our capital stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to us, that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them.

The percentage of beneficial ownership in the table below is based on 32,164,469 shares of common stock deemed to be outstanding as of March 1, 2017.

Name and address of beneficial owner(1)	Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% Stockholders:		
Entities affiliated with Third Rock Ventures(2)	13,279,129	41.3%
Entities affiliated with Fidelity Investments(3)	4,052,916	12.6%
Celgene Switzerland LLC(4)	3,456,463	10.7%
Named Executive Officers and Directors:		
Richard Murray, Ph.D.(5)	724,181	2.2%
Kim C. Drapkin, CPA(6)	117,356	*
Elizabeth G. Trehu, M.D.(7)	89,052	*
Barbara Duncan(8)	10,784	*
Cary G. Pfeffer, M.D.	—	*
Perry A. Karsen(9)	30,749	*
J. Duncan Higgons(10)	35,624	*
Robert Kamen, Ph.D.(11)	96,206	*
Robert Tepper, M.D.(2)(12)	13,279,129	41.3%
All executive officers and directors as a group (9 persons)	14,383,081	43.4%

* Represents beneficial ownership of less than one percent.

(1) Unless otherwise indicated, the address for each beneficial owner is c/o Jounce Therapeutics, Inc., 1030 Massachusetts Avenue, Cambridge, MA 02138.

(2) Consists of: (i) 9,688,344 shares of common stock held by Third Rock Ventures II, L.P., or TRV II LP; (ii) 542,005 shares of common stock held by TRV II LP; and (iii) 3,048,780 shares of common stock held by Third Rock Ventures III, L.P., or TRV III LP. Each of Third Rock Ventures II GP, LP, or TRV II GP, the general partner of TRV II LP, Third Rock Ventures GP II, LLC, or TRV II LLC, the general partner of TRV II GP, and Mark Levin, Kevin Starr and Dr. Tepper, the managers of TRV II LLC, may be deemed to share voting and investment power over the shares held of record by TRV II LP. Each of Third Rock Ventures III GP, LP, or TRV III GP, the general partner of TRV III LP, and Third Rock Ventures GP III, LLC, TRV III LLC, the general partner of TRV III GP, and Mark Levin, Kevin Starr and Dr. Tepper, the managers of TRV III LLC, may be deemed to share voting and investment power over the shares held of record by TRV III LP. The address for each of TRV II LP and TRV III LP is 29 Newbury Street, Suite 401, Boston, MA 02116.

(3) Based solely on a Schedule 13G filed by FMR LLC on February 10, 2017, consists of 4,052,916 shares of common stock held by entities affiliated with FMR LLC.Edward C. Johnson 3d is a Director and the Chairman of FMR LLC and Abigail P. Johnson is a Director, the Vice Chairman and the President of FMR LLC. Members of the family of Edward C. Johnson 3d, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Edward C. Johnson 3d nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act, or Fidelity Funds, advised by Fidelity Management & Research Company, or FMR Co, a wholly owned subsidiary of FMR LLC, which power resides with the Fidelity Funds' Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees. The address for Fidelity Management & Research Company, or Fidelity, is 82 Devonshire Street, Boston, Massachusetts 02109, a wholly owned subsidiary of FMR LLC and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of shares of common stock as a result of acting as investment adviser to various investment companies, or Fidelity Funds, registered under Section 8 of the Investment Company Act of 1940.

(4) Consists of 3,456,463 shares of common stock held by Celgene Switzerland LLC. The sole member of Celgene Switzerland LLC is Celgene Switzerland S.A., which is a wholly owned subsidiary of Celgene Corporation. The address of Celgene Switzerland LLC is AON House, 30 Woodbourne Ave, Pembroke, HM 08, Bermuda.

(5) Consists of options to purchase 724,181 shares of common stock that are exercisable within 60 days of March 1, 2017.

(6) Includes: (i) 6,775 shares of restricted stock; and (ii) options to purchase 110,581 shares of common stock that are exercisable within 60 days of March 1, 2017.

(7) Consists of options to purchase 89,052 shares of common stock that are exercisable within 60 days of March 1, 2017.

(8) Consists of options to purchase 10,784 shares of common stock that are exercisable within 60 days of March 1, 2017.

(9) Includes: (i) 5,000 shares of common stock, held by Perry Karsen; (ii) options to purchase 25,749 shares of common stock that are exercisable within 60 days of March 1, 2017.

(10) Includes: (i) 6,700 shares of common stock, held by John Duncan Higgons; (ii) 20,325 shares of restricted stock; and (ii) options to purchase 8,599 shares of common stock that are exercisable within 60 days of March 1, 2017.

(11) Includes: (i) 60,975 shares of restricted stock, held by Dr. Kamen as an individual; (ii) 33,875 shares of common stock, held by The Robert Kamen 2012 Irrevocable Trust, of which Dr. Kamen serves as the trustee; and (iii) options to purchase 1,356 shares of common stock that are exercisable within 60 days of March 1, 2017.

(12) Dr. Tepper is affiliated with TRV II LP and TRV III LP. Each of TRV II GP, the general partner of TRV II LP, and TRV II LLC, the general partner of TRV II GP, and Mark Levin, Kevin Starr and Dr. Tepper, the managers of TRV II LLC, may be deemed to have voting and investment power over the shares held of record by TRV II LP. Each of TRV III GP, the general partner of TRV III LP, and TRV III LLC, the general partner of TRV III GP, and Mark Levin, Kevin Starr and Dr. Tepper, the managers of TRV III LLC, may be deemed to have voting and investment power over the shares held of record by TRV III LP. No stockholder, director, officer, manager, member or employee of TRV II GP, TRV III GP, TRV II LLC or TRV III LLC has beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of any shares held by TRV II LP or TRV III LP.

Securities Authorized for Issuance under Equity Compensation Plans

The following table contains information about our equity compensation plans as of December 31, 2016. As of December 31, 2016, we had one equity compensation plan, our 2013 Plan, which was approved by our board of directors and our stockholders.

Equity Compensation Plan Information			
Plan category	**Number of securities to be issued upon exercise of outstanding options, warrants and rights**	**Weighted-average exercise price of outstanding options, warrants and rights**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))**
	(a)	**(b)**	**(c)**
Equity compensation plans approved by security holders	1,298,127	$ 1.43	2,991,566
Equity compensation plans not approved by security holders	—	—	—
Total	1,298,127	$ 1.43	2,991,566

As described above under "Item 11. Executive Compensation", in connection with our IPO, our board of directions and stockholders approved two new equity compensation plans, the 2017 Plan and the ESPP. The 2017 Plan and the ESPP became effective on January 25, 2017. The table above does not include any amounts issuable under either the 2017 Plan or the ESPP.

ITEM 13. Certain Relationships and Related Transactions and Director Independence

Other than the compensation agreements and other arrangements described under "Executive compensation", "Director compensation" and "Non-employee director compensation" in this Form 10-K and the transactions described below, since January 1, 2015, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, $120,000 and in which any director, executive officer, holder of five percent or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

Agreements with Stockholders

Investors' Rights Agreement

We are a party to an amended and restated investors' rights agreement, or the Investors' Rights Agreement, dated as of August 4, 2015, as amended on August 1, 2016, with holders of our previously-outstanding preferred stock, including certain of our 5% stockholders and their affiliates and entities affiliated with certain of our officers and directors. The Investors' Rights Agreement provides these holders the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing.

Stockholders Agreement

In connection with the Series B convertible preferred stock financing, on April 17, 2015, we entered into the Amended and Restated Stockholders Agreement, or the Stockholders Agreement, with the holders of our Series A and Series B convertible preferred stock and certain key holders of our common stock. We amended the Stockholders Agreement on May 10, 2016, and again in connection with the Series B-1 convertible preferred stock financing, on August 1, 2016. With the completion of the IPO on February 1, 2017, all provisions of this agreement were terminated. All of our current directors were elected pursuant to the terms of this agreement.

Management and Consulting Services

During the fiscal year ended December 31, 2016 we incurred consulting fees to Third Rock Ventures, LLC, or TRV, in the amounts of $18,000. TRV is a management company that is party to a services agreement with Third Rock Ventures, L.P., the beneficial owner of more than 5% of our voting securities. Dr. Pfeffer, Dr. Tepper and Dr. Kamen are members of our board of directors, and Dr. Pfeffer and Dr. Tepper are partners at TRV, Dr. Tepper is a partner at TRV and Dr. Kamen is an entrepreneur-in-residence at TRV. This consulting fee was paid to TRV in amounts mutually agreed upon in advance by us and TRV in consideration of certain strategic and ordinary course business operations consulting services provided to us on an as-needed basis, from time to time and at our request, by individuals related to TRV, including Dr. Pfeffer, and Dr. Kamen but not including Dr. Tepper. Such fees were payable pursuant to invoices submitted to us by TRV from time to time. None of these consulting fees were paid directly or indirectly to Dr. Pfeffer, Dr. Tepper or Dr. Kamen. The consulting fees paid to TRV did not exceed 5% of the consolidated gross revenue of TRV during any of these fiscal years.

Participation in Initial Public Offering

In our IPO, funds affiliated with Fidelity and Celgene, both of whom were one of our 5% stockholders at the time of our IPO, purchased 725,000 and 625,000 shares of our common stock, respectively. Such purchases were made through the underwriters at the IPO price of $16.00 per share for an aggregate purchase price of $21.6 million.

Employment Agreements

See the "Executive Compensation" section of this Annual Report on Form 10-K for a further discussion of these arrangements.

Indemnification of Officers and Directors

We have entered into agreements to indemnify our directors and executive officers. These agreements will, among other things, require us to indemnify these individuals for certain expenses (including attorneys' fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on behalf of our company or that person's status as a member of our board of directors to the maximum extent allowed under Delaware law.

Policies and Procedures for Related Party Transactions

In connection with the completion of our initial public offering, or IPO, in February 2017, we adopted a related party policy that requires all future transactions between us and any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of them, or any other related persons (as defined in Item 404 of Regulation S-K) or their affiliates, in which the amount involved is equal to or greater than $120,000, be approved in advance by our audit committee. Any request for such a transaction must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to, the extent of the related party's interest in the transaction, and whether the transaction is on terms no less favorable to us than terms we could have generally obtained from an unaffiliated third party under the same or similar circumstances.

Director Independence

Rule 5605 of the NASDAQ Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the NASDAQ Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Audit committee members must also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act, and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of our board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C-1, the board must consider, for each member of a compensation committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our board of directors has determined that all members of the board of directors, except Richard Murray, Ph.D., Cary G. Pfeffer, M.D., Robert Kamen, Ph.D. and Robert Tepper, M.D., are independent directors, including for purposes of NASDAQ and the SEC. In making such independence determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock.

Under the rules of NASDAQ, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees must be independent. We intend to rely on the phase-in rules of NASDAQ with respect to the independence of the audit, compensation, and nominating and corporate governance committees. In accordance with these phase-in provisions, our audit, compensation, and nominating and corporate governance committees will have at least one independent member by the effective date of the registration statement, at least two independent members within 90 days of the effective date of the registration statement and all members will be independent within one year of the effective date of the registration statement. The following is a summary of our aforementioned board of director committees:

Audit Committee

Barbara Duncan, J. Duncan Higgons and Perry A. Karsen serve on the audit committee, which is chaired by Ms. Duncan. Our board of directors has determined that Ms. Duncan, Mr. Higgons and Mr. Karsen are "independent" for audit committee purposes as that term is defined in the rules of the SEC and the applicable NASDAQ rules, and each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated Ms. Duncan as an "audit committee financial expert," as defined under the applicable rules of the SEC.

Compensation Committee

J. Duncan Higgons, Perry A. Karsen and Cary G. Pfeffer, M.D. serve on the compensation committee, which is chaired by Mr. Higgons. Our board of directors has determined that a majority of the members of the committee will be “independent” (as defined in the applicable NASDAQ rules) within 90 days of listing on the NASDAQ Global Select Market and all members will be “independent” (as defined in the applicable NASDAQ rules) within one year of listing on the NASDAQ Global Select Market.

Nominating and Corporate Governance Committee

Perry A. Karsen, Cary G. Pfeffer, M.D. and Barbara Duncan serve on the nominating and corporate governance committee, which is chaired by Mr. Karsen. Our board of directors has determined that a majority of the members of the committee will be “independent” (as defined in the applicable NASDAQ rules) within 90 days of listing on the NASDAQ Global Select Market and all members will be “independent” (as defined in the applicable NASDAQ rules) within one year of listing on the NASDAQ Global Select Market.

Director Affiliations

Some of our directors are affiliated with and serve on our board of directors as representatives of entities which beneficially own or owned 5% or more of our common stock, as indicated in the table below:

Director	Principal Stockholder
Cary G. Pfeffer, M.D.	Third Rock Ventures, LLC
Robert Kamen, Ph.D.	Third Rock Ventures, LLC
Robert Tepper, M.D.	Third Rock Ventures, LLC

Item 14. Principal Accounting Fees and Services

The following table summarizes the fees of Ernst & Young LLP, our independent registered public accounting firm, billed us for each of the last two fiscal years (in thousands):

	Year Ended December 31,	
	2016	2015
Audit fees (1)	$ 911	$ 726
Audit-related fees (2)	66	—
Tax fees (3)	132	—
	$ 1,109	$ 726

(1) Audit fees consist of fees billed for professional services by Ernst & Young LLP for audit and quarterly review of our consolidated financial statements and review of the registration statement on Form S-1 for our IPO, and related services that are normally provided in connection with statutory and regulatory filings or engagements.

(2) Audit-related fees consist of fees billed for professional services by Ernst & Young LLP for review of our Celgene Master Research and Collaboration Agreement and its related accounting treatment.

(3) Tax fees consist of fees for professional services performed by Ernst & Young LLP with respect to tax compliance, tax advice and tax planning.

Pre-Approval Policies and Procedures

In connection with our IPO, we adopted a policy under which the audit committee must pre-approve all audit and permissible non-audit services to be provided by the independent registered public accounting firm. These services

may include audit services, audit-related services, tax services and other services. Pre-approval would generally be requested annually, with any pre-approval detailed as to the particular service, which must be classified in one of the four categories of services listed below. The audit committee may also, on a case-by-case basis, pre-approve particular services that are not contained in the annual pre-approval request. In connection with this pre-approval policy, the audit committee also considers whether the categories of pre-approved services are consistent with the rules on accountant independence of the SEC and the Public Company Accounting Oversight Board.

In addition, in the event time constraints require pre-approval prior to the audit committee's next scheduled meeting, the audit committee has authorized its chairperson to pre-approve services. Engagements so pre-approved are to be reported to the audit committee at its next scheduled meeting.

PART IV

ITEM 15. Exhibits and Financial Statement Schedules

(1) Financial Statements

The following documents are included on pages F-2 through F-33 attached hereto and are filed as part of this Annual Report on Form 10-K.

Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets	F-3
Consolidated Statements of Operations	F-4
Consolidated Statements of Comprehensive Loss	F-5
Consolidated Statements of Convertible Preferred Stock, Contingently Redeemable Common Stock and Stockholders' Deficit	F-6
Consolidated Statements of Cash Flows	F-7
Notes to Consolidated Financial Statements	F-8

(2) Financial Statement Schedules

Schedules have been omitted since they are either not required or not applicable or the information is otherwise included herein.

(3) Exhibits

The exhibits filed or furnished as part of this Annual Report on Form 10-K are listed in the Exhibit Index immediately preceding such Exhibits, which Exhibit Index is incorporated herein by reference.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of
Jounce Therapeutics, Inc.

We have audited the accompanying consolidated balance sheets of Jounce Therapeutics, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, convertible preferred stock, contingently redeemable common stock and stockholders' deficit, and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 10, 2017

Jounce Therapeutics, Inc.
Consolidated Balance Sheets
(amounts in thousands, except share and per share data)

	December 31,	
	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$ 44,848	$ 45,161
Short-term investments	104,410	—
Prepaid expenses and other current assets	2,529	550
Total current assets	151,787	45,711
Property and equipment, net	7,241	5,093
Long-term investments	108,116	—
Other non-current assets	4,168	2,171
Total assets	$ 271,312	$ 52,975
Liabilities, convertible preferred stock, contingently redeemable common stock and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 3,511	$ 2,618
Accrued expenses	5,855	3,387
Deferred rent and lease incentive, current	720	672
Deferred revenue, current—related party	80,544	—
Other current liabilities	43	45
Total current liabilities	90,673	6,722
Deferred rent and lease incentive, net of current portion	1,452	1,308
Deferred revenue, net of current portion—related party	107,260	—
Other non-current liabilities	56	89
Total liabilities	$ 199,441	$ 8,119
Commitments and contingencies (see note 12)		
Convertible preferred stock (Series A), $0.001 par value:		
47,000,000 shares authorized at December 31, 2016 and 2015; 47,000,000 shares issued and outstanding at December 31, 2016 and 2015; aggregate liquidation preference of $57,333 at December 31, 2016	47,112	47,112
Convertible preferred stock (Series B), $0.001 par value:		
24,778,761 shares authorized, issued and outstanding at December 31, 2016 and 2015; aggregate liquidation preference of $63,625 at December 31, 2016	55,849	55,849
Convertible preferred stock (Series B-1), $0.001 par value:		
10,448,100 and zero shares authorized, issued and outstanding at December 31, 2016 and 2015, respectively; aggregate liquidation preference of $37,365 at December 31, 2016	36,077	—
Contingently redeemable common stock	1,921	655
Stockholders' deficit:		
Common stock, $0.001 par value: 29,810,298 and 25,474,254 shares authorized at December 31, 2016 and 2015, respectively; 2,518,346 and 2,580,970 shares issued at December 31, 2016 and 2015, respectively; 2,424,074 and 1,832,922 shares outstanding at December 31, 2016 and 2015, respectively	2	2
Additional paid-in capital	4,515	707
Accumulated other comprehensive loss	(433)	—
Accumulated deficit	(73,172)	(59,469)
Total stockholders' deficit	$ (69,088)	$ (58,760)
Total liabilities, convertible preferred stock, contingently redeemable common stock and stockholders' deficit	$ 271,312	$ 52,975

The accompanying notes are an integral part of these consolidated financial statements.

Jounce Therapeutics, Inc.
Consolidated Statements of Operations
(amounts in thousands, except share and per share data)

	Year Ended December 31,		
	2016	2015	2014
Revenue:			
Collaboration revenue—related party	$ 37,197	$ —	$ —
Operating expenses:			
Research and development	34,904	22,130	11,243
General and administrative	16,759	8,266	4,969
Total operating expenses	51,663	30,396	16,212
Operating loss	(14,466)	(30,396)	(16,212)
Other income (expense), net:			
Other income (expense), net	763	5	185
Other financing income, net	—	1,859	5,511
Total other income (expense), net	763	1,864	5,696
Net loss	$ (13,703)	$ (28,532)	$ (10,516)
Reconciliation of net loss to net loss attributable to common stockholders:			
Net loss	$ (13,703)	$ (28,532)	$ (10,516)
Accretion of preferred stock to redemption value	—	(1,011)	(2,434)
Loss on extinguishment of convertible preferred stock	—	(2,079)	—
Accrued dividends on Series A convertible preferred stock	(3,760)	(2,716)	—
Accrued dividends on Series B convertible preferred stock	(4,460)	(3,165)	—
Accrued dividends on Series B-1 convertible preferred stock	(1,215)	—	—
Net loss attributable to common stockholders	$ (23,138)	$ (37,503)	$ (12,950)
Net loss per share attributable to common stockholders, basic and diluted	$ (11.00)	$ (23.13)	$ (10.93)
Weighted-average common shares outstanding, basic and diluted	2,102,651	1,621,240	1,184,440

The accompanying notes are an integral part of these consolidated financial statements.

Jounce Therapeutics, Inc.
Consolidated Statements of Comprehensive Loss
(amounts in thousands)

	Year Ended December 31,		
	2016	2015	2014
Net loss	$ (13,703)	$ (28,532)	(10,516)
Other comprehensive loss:			
Unrealized losses from available-for-sale securities, net of tax of $0	(433)	—	—
Comprehensive loss	$ (14,136)	$ (28,532)	$ (10,516)

The accompanying notes are an integral part of these consolidated financial statements.

Jounce Therapeutics, Inc.
Consolidated Statements of Convertible Preferred Stock, Contingently Redeemable Common Stock and Stockholders' Deficit
(amounts in thousands except share data)

	Series A convertible preferred stock		Series B convertible preferred stock		Series B-1 convertible preferred stock		Contingently redeemable common stock	Common stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Amount	Shares	Amount				
Balance at December 31, 2013	17,000,000	$ 12,599	—	$ —	—	$ —	$ 47	710,364	$ 1	$ 2	$ —	$ (15,314)	$ (15,311)
Issuance of common stock	—	—	—	—	—	—	—	60,974	—	29	—	—	29
Issuances of Series A convertible preferred stock, net of issuance costs of $16	15,000,000	14,984	—	—	—	—	—	—	—	—	—	—	—
Reclassification of tranche rights upon issuance of preferred stock	—	(2,704)	—	—	—	—	—	—	—	—	—	—	—
Vesting of restricted common stock	—	—	—	—	—	—	—	642,713	1	4	—	—	5
Stock-based compensation expense	—	—	—	—	—	—	105	—	—	227	—	—	227
Accretion of preferred stock to redemption value	—	2,434	—	—	—	—	—	—	—	(259)	—	(2,175)	(2,434)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(10,516)	(10,516)
Balance at December 31, 2014	32,000,000	$ 27,313	—	$ —	—	$ —	$ 152	1,414,051	$ 2	$ 3	$ —	$ (28,005)	$ (28,000)
Issuance of Series A convertible preferred stock, net of issuance costs of $16	15,000,000	14,984	—	—	—	—	—	—	—	—	—	—	—
Reclassification of tranche rights upon issuance of preferred stock	—	1,725	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series B convertible preferred stock, net of issuance costs of $151	—	—	24,778,761	55,849	—	—	—	—	—	—	—	—	—
Exercises of common stock options	—	—	—	—	—	—	—	6,422	—	3	—	—	3
Vesting of restricted common stock	—	—	—	—	—	—	—	412,449	—	10	—	—	10
Stock-based compensation expense	—	—	—	—	—	—	503	—	—	849	—	—	849
Accretion of preferred stock to redemption value	—	1,011	—	—	—	—	—	—	—	(158)	—	(853)	(1,011)
Extinguishment of Series A convertible preferred stock	—	2,079	—	—	—	—	—	—	—	—	—	(2,079)	(2,079)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(28,532)	(28,532)
Balance at December 31, 2015	47,000,000	$ 47,112	24,778,761	$ 55,849	—	$ —	$ 655	1,832,922	$ 2	$ 707	$ —	$ (59,469)	$ (58,760)
Exercises of common stock options	—	—	—	—	—	—	—	53,308	—	50	—	—	50
Issuance of Series B-1 convertible preferred stock, net of issuance costs of $74	—	—	—	—	10,448,100	36,077	—	—	—	—		—	—
Vesting of restricted common stock	—	—	—	—	—	—	—	537,844	—	35	—	—	35
Stock-based compensation expense	—	—	—	—	—	—	1,266	—	—	3,723	—	—	3,723
Other comprehensive loss	—	—	—	—	—	—	—	—	—	—	(433)	—	(433)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(13,703)	(13,703)
Balance at December 31, 2016	47,000,000	$ 47,112	24,778,761	$ 55,849	10,448,100	$ 36,077	$ 1,921	2,424,074	$ 2	$ 4,515	$ (433)	$ (73,172)	$ (69,088)

The accompanying notes are an integral part of these consolidated financial statements.

Jounce Therapeutics, Inc.
Consolidated Statements of Cash Flows
(amounts in thousands)

	Year Ended December 31,		
	2016	2015	2014
Cash flow from operating activities:			
Net loss	$ (13,703)	$ (28,532)	$ (10,516)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Stock-based compensation expense	4,989	1,352	332
Depreciation	1,944	1,470	1,106
Net amortization of premiums and discounts on investments	327	—	—
Change in other financing income (expense), net	—	(1,859)	(5,511)
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(2,489)	(23)	(217)
Other non-current assets	(527)	(99)	1
Accounts payable	(312)	673	(301)
Accrued expenses and other current liabilities	953	1,929	810
Deferred revenue—related party	187,804	—	—
Deferred rent	192	(622)	(613)
Other non-current liabilities	—	(28)	—
Lease incentive benefit	510	—	—
Net cash provided by (used in) operating activities	179,688	(25,739)	(14,909)
Cash flow from investing activities:			
Purchase of marketable securities	(213,286)	—	—
Purchases of property and equipment	(2,222)	(2,202)	(699)
Change in restricted cash	—	60	(10)
Net cash used in investing activities	(215,508)	(2,142)	(709)
Cash flow from financing activities:			
Proceeds from the issuance of Series A convertible preferred stock and Tranche Rights, net of issuance costs	—	14,984	14,984
Proceeds from the issuance of Series B convertible preferred stock, net of issuance costs	—	55,849	—
Proceeds from the issuance of Series B-1 convertible preferred stock, net of issuance costs	36,077	—	—
Proceeds from the issuance of common stock and restricted stock	50	112	22
Cash paid for issuance costs	(620)	(241)	—
Net cash provided by financing activities	35,507	70,704	15,006
Net (decrease) increase in cash and cash equivalents	(313)	42,823	(612)
Cash and cash equivalents, beginning of period	45,161	2,338	2,950
Cash and cash equivalents, end of period	$ 44,848	$ 45,161	$ 2,338
Supplemental disclosure of non-cash activities:			
Accretion of convertible preferred stock to redemption value	$ —	$ 1,011	$ 2,434
Purchases of property and equipment included in accounts payable and accrued expenses	$ 1,870	$ 22	$ 21
Reclassification of preferred stock tranche asset upon settlement	$ —	$ —	$ 2,704
Reclassification of preferred stock tranche liability upon settlement	$ —	$ 1,725	$ —
Issuance costs in accounts payable and accrued expenses	$ 850	$ 1,580	$ —

The accompanying notes are an integral part of these consolidated financial statements.

Jounce Therapeutics, Inc.
Notes to Consolidated Financial Statements

1. Nature of Business

Jounce Therapeutics, Inc. (the "Company") is a clinical stage immunotherapy company dedicated to transforming the treatment of cancer by developing therapies that enable the immune system to attack tumors and bring long-lasting benefits to patients. The Company is subject to a number of risks similar to those of other clinical stage immunotherapy companies, including dependence on key individuals; the need to develop commercially viable products; competition from other companies, many of which are larger and better capitalized; and the need to obtain adequate additional financing to fund the development of its products.

In July 2016, the Company entered into a Master Research and Collaboration Agreement (the "Celgene Collaboration Agreement") and a Series B-1 Preferred Stock Purchase Agreement with Celgene Corporation ("Celgene"). Under the Celgene Collaboration Agreement, the Company received a non-refundable upfront payment of $225.0 million. Under the Series B-1 Preferred Stock Purchase Agreement, Celgene purchased 10,448,100 shares of Series B-1 convertible preferred stock ("Series B-1 preferred stock") for $36.1 million (Note 3).

On February 1, 2017, the Company closed its initial public offering, or IPO, of 7,319,750 shares of the Company's common stock at a public offering price of $16.00 per share, including 954,750 shares of common stock issued upon the full exercise by the underwriters of their option to purchase additional shares. The gross proceeds from the IPO were approximately $117.1 million and the net proceeds were approximately $108.9 million, after deducting underwriting discounts and commissions and other offering expenses payable by the Company. Upon completion of the Company's IPO, all outstanding preferred stock as of December 31, 2016 was automatically converted into an aggregate of 22,283,690 shares.

The Company had cash, cash equivalents, and marketable securities of $257.4 million at December 31, 2016, we expect that the net proceeds from our IPO, together with our existing cash, cash equivalents, and marketable securities, will enable us to fund our operating expenses and capital expenditure requirements for at least twenty-four months from March 10, 2017. The Company expects to finance its future cash needs through a combination of equity or debt financings and collaboration arrangements including its Celgene Collaboration Agreement.

2. Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Jounce Therapeutics, Inc. and its wholly owned subsidiary, Jounce Mass Securities, Inc., which was established in July 2016. All intercompany transactions and balances have been eliminated.

Reverse Stock Split

In connection with the IPO, the board of directors and the stockholders of the Company approved a one-for-3.69 reverse stock split of the Company’s issued and outstanding common stock. The reverse stock split became effective on January 13, 2017. All share and per share amounts in the consolidated financial statements have been retroactively adjusted for all periods presented to give effect to the reverse stock split, including reclassifying an amount equal to the reduction in par value to additional paid-in capital.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. On an ongoing basis, the Company's management evaluates its estimates which include, but are not limited to, estimates related to accrued expenses, fair value of common stock, valuation of Tranche Rights, stock-based compensation, income taxes and include estimates related to the period of performance for units of accounting identified under the Celgene Collaboration Agreement. The Company bases its estimates on historical experience and other market specific or other relevant assumptions it believes to be reasonable under the circumstances. Actual results could differ from those estimates.

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company determined the estimated fair value of its common stock based on a number of objective and subjective factors, including external market conditions affecting the biotechnology industry sector and the prices at which the Company sold shares of convertible preferred stock, the superior rights and preferences of securities senior to the Company's common stock at the time. The Company utilized valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants, or AICPA, *Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation*, or the AICPA Practice Aid, to estimate the fair value of its common stock. The methodologies included the Option Pricing Method, or OPM, utilizing the Backsolve Method (a form of the market approach defined in the AICPA Practice Aid), hybrid method which is a Probability Weighted Expected Method, or PWERM, where the equity value in one of the scenarios is calculated using an OPM and another is an IPO and a PWERM scenario consisting of three scenarios: a scheduled IPO, a delayed IPO or deemed liquidation event. This valuation methodology includes estimates and assumptions that require management's judgment. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Revenue Recognition

The Company recognizes revenue from license and collaboration agreements in accordance with FASB ASC Topic 605, *Revenue Recognition* (ASC 605). Accordingly, revenue is recognized when all of the following criteria are met:

- persuasive evidence of an arrangement exists;
- delivery has occurred or services have been rendered;
- the seller's price to the buyer is fixed or determinable; and
- collectability is reasonably assured.

Amounts received prior to satisfying the revenue recognition criteria are recognized as deferred revenue in the Company's consolidated balance sheets. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, current portion. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

Multiple Element Arrangements

Determination of Accounting of Units

When evaluating multiple element arrangements, the Company considers whether the deliverables under the arrangement represent separate units of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. In determining the units of accounting, management evaluates certain criteria, including whether the deliverables have standalone value, based on the consideration of the relevant facts and circumstances for each arrangement. The consideration received is allocated among the separate units of accounting using the relative selling price method, and the applicable revenue recognition criteria are applied to each of the separate units. Deliverables are considered separate units of accounting provided that: (i) the delivered item(s) has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the Company. In assessing whether an item has standalone value, the Company considers factors such as the research, manufacturing and

commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, the Company considers whether the collaboration partner can use the deliverable(s) for their intended purpose without the receipt of the remaining element(s), whether the value of the deliverable is dependent on the undelivered item(s) and whether there are other vendors that can provide the undelivered element(s).

Under multiple element arrangements, options are considered substantive if, at the inception of the arrangement, the Company is at risk as to whether the collaboration partner will choose to exercise the option. Factors that the Company considers in evaluating whether an option is substantive include the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the option, the likelihood the option will be exercised, and the cost to exercise the option. When an option is considered substantive, the Company does not consider the option or item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in the allocable arrangement consideration, assuming the option is not priced at a significant and incremental discount. When an option is not considered substantive, the Company would consider the option, including other deliverables contingent upon the exercise of the option, to be a deliverable at the inception of the arrangement and a corresponding amount would be included in the allocable arrangement consideration. In addition, if the price of the option includes a significant incremental discount, the discount inherent in the option price would be included as a deliverable at the inception of the arrangement.

Allocation of Arrangement Considerations

Arrangement consideration that is fixed or determinable is allocated among the separate units of accounting using the relative selling price method. Then, the applicable revenue recognition criteria in ASC 605-25 are applied to each of the separate units of accounting in determining the appropriate period and pattern of recognition. The Company determines the selling price of a unit of accounting following the hierarchy of evidence prescribed by ASC 605-25. Accordingly, the Company determines the estimated selling price for units of accounting within each arrangement using vendor-specific objective evidence (VSOE) of selling price, if available, third-party evidence (TPE) of selling price if VSOE is not available, or best estimate of selling price (BESP) if neither VSOE nor TPE is available. The Company typically uses BESP to estimate the selling price, since it generally does not have VSOE or TPE of selling price for its units of accounting. Determining the BESP for a unit of accounting requires significant judgment. In developing the BESP for a unit of accounting, the Company considers applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. The Company validates the BESP for units of accounting by evaluating whether changes in the key assumptions used to determine the BESP will have a significant effect on the allocation of arrangement consideration between multiple units of accounting.

Patterns of Recognition

The Company recognizes arrangement consideration allocated to each unit of accounting when all of the revenue recognition criteria in ASC 605 are satisfied for that particular unit of accounting. The Company recognizes revenue associated with substantive options upon exercise of the option if the underlying license has standalone value from the other deliverables to be provided subsequent to delivery of the license. If the license does not have standalone value, the amounts allocated to the license option will be combined with the related undelivered items as a single unit of accounting.

The Company recognizes the revenue amounts associated with research and development services and other service related deliverables ratably over the associated period of performance. If there is no discernible pattern of performance or objectively measurable performance measures do not exist, then the Company recognizes revenue under the arrangement on a straight-line basis over the period the Company is expected to complete its performance obligations. If the pattern of performance in which the service is provided to the customer can be determined and objectively measurable performance exists, then the Company recognizes revenue under the arrangement using the proportional performance method. Revenue recognized is limited to the lesser of the cumulative amount of payments received and the cumulative amount of revenue earned, as determined using the straight-line method or proportional performance, as applicable, as of each reporting period.

Recognition of Milestones and Royalties

At the inception of an arrangement that includes milestone payments, the Company evaluates whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether (i) the consideration is commensurate with either the Company's performance to achieve the milestone or the enhancement of performance to achieve the milestone, (ii) the consideration relates solely to past performance and (iii) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as clinical, regulatory, commercial and other risks that must be overcome to achieve the respective milestone and the level of effort and investment required to achieve the respective milestone in making this assessment. There is considerable judgment involved in determining whether a milestone satisfies all of the criteria required to conclude that a milestone is substantive. In accordance with ASC Topic 605-28, *Revenue Recognition—Milestone Method* (ASC 605-28), clinical and regulatory milestones that are considered substantive, recognized as revenue in their entirety upon successful accomplishment of the milestone, assuming all other revenue recognition criteria are met. Milestones that are not considered substantive are recognized as revenue over the remaining period of performance, assuming all other revenue recognition criteria are met. Revenue from commercial milestones payments are recorded as revenue upon achievement of the milestone, assuming all other recognition criteria are met.

Fair Value of Financial Instruments

ASC Topic 820, *Fair Value Measurement* ("ASC 820"), establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable 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 the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier fair value hierarchy that distinguishes between the following:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying amounts reflected in the consolidated balance sheets for cash and cash equivalents, prepaid expenses and other current assets, accounts payable and accrued expenses approximate their fair values, due to their short-term nature.

Cash Equivalents

Cash equivalents are highly liquid investments that are readily convertible into cash with original maturities of three months or less when purchased. These assets include investment in money market funds that invests in U.S. Treasury obligations.

Marketable Securities

Short-term investments consist of investments with maturities greater than ninety days and less than one year from the balance sheet date. Long-term investments consist of investments with maturities of greater than one year that are not expected to be used to fund current operations. The Company classifies all of its investments as available-for-sale securities. Accordingly, these investments are recorded at fair value, which is based on quoted market prices. Realized gains and losses, amortization and accretion of discounts and premiums are included in other income (expense).

Restricted Cash

Restricted cash is recorded in other non-current assets as of December 31, 2016 and 2015 and includes amounts held as a security deposit in the form of letters of credit for the Company's leased facilities.

Property and Equipment

Property and equipment consists of laboratory equipment, furniture and fixtures, computer equipment, leasehold improvements, and construction in progress is recorded at cost. The Company capitalizes equipment that is acquired for research and development activities and that has alternate future use. Expenditures for maintenance and repairs are recorded to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Leasehold improvements are depreciated over the lesser of their useful life or the term of the lease. Depreciation is calculated over the estimated useful lives of the assets using the straight-line method.

Deferred Financing Costs

The Company capitalizes deferred financing costs, which primarily consists of direct, incremental legal and accounting fees relating to the Company's financing, within other non-current assets. The deferred financing costs would typically be offset against financing proceeds upon the consummation of an offering. The Company had capitalized $2.0 million of deferred initial offering costs related to prior registration statements confidentially submitted to the Securities and Exchange Commission in 2015. In the second quarter of 2016, the Company wrote off these deferred initial offering costs to general and administrative expenses because the offering was postponed significantly in excess of 90 days. As a result, the costs were not deemed realizable as the Company expects to incur similar costs in connection with its current planned IPO. The Company incurred $1.5 million and $1.8 million in deferred IPO costs as of December 31, 2016 and 2015, respectively, which are recorded in other non-current assets on the balance sheet.

Impairment of Long-lived Assets

The Company reviews its property and equipment whenever events or changes in circumstances indicate that the carrying value of certain assets might not be recoverable and recognizes an impairment loss when it is probable that an asset's realizable value is less than the carrying value. To date, no such impairment losses have been recorded.

Research and Development

Expenditures relating to research and development are expensed as incurred. Research and development expenses consist of both internal and external costs such as employee compensation, consultant costs, external research, fees paid to clinical research organizations and other third parties associated with clinical trials, license fees and facilities costs associated with the development of the Company's immunotherapy pipeline and building of its Transformational Science Platform.

Intellectual Property Costs

The Company expenses costs associated with intellectual property related matters as incurred and classifies such costs as general and administrative expenses in the accompanying consolidated statements of operations.

Stock-based Compensation Expense

The Company expenses the fair value of employee stock awards over the requisite service period, which is generally the vesting period. Compensation cost for stock awards issued to employees is measured using the grant

date fair value of the award. Grants of stock awards to non-employees are required to be recognized as expense in the consolidated statements of operations based on their vesting date fair values. Non-employee stock-based awards are revalued at each period to reflect the current fair value of such awards. Stock-based compensation is recognized on a straight-line basis.

The Company uses intrinsic value, which is based on the value of its common stock less any purchase price, to determine the fair value of restricted stock awards. The Company estimates the fair value of stock options at the date of grant using the Black-Scholes option-pricing model which requires inputs based on certain subjective assumptions. Expected volatility is calculated based on reported volatility data for a representative group of publicly traded companies for which historical information was available. The historical volatility is calculated based on a period of time commensurate with the expected term assumptions. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant commensurate with the expected term assumption. The Company uses the simplified method, under which the expected term is presumed to be the midpoint between the vesting date and the end of the contractual term. The Company utilizes this method due to lack of historical exercise data and the plain nature of its stock based awards. The Company uses the remaining contractual term for the expected life of non-employee awards.

The expected dividend yield is assumed to be zero as the Company has never paid dividends and has no current plans to pay any dividends on common stock.

The Company records the expense for stock-based compensation awards subject to performance-based milestone vesting over the remaining service period when management determines that achievement of the milestone is probable. Management evaluates when the achievement of a performance-based milestone is probable based on the expected satisfaction of the performance conditions as of the reporting date. The amount of stock-based compensation expense recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest.

Income Taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on differences between the financial statement carrying amounts and the tax basis of the assets and liabilities using the enacted tax rates in effect in the years in which the differences are expected to reverse. A valuation allowance against deferred tax assets is recorded if, based on the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company accounts for uncertain tax positions using a more-likely-than-not threshold for recognizing and resolving uncertain tax positions. The evaluation of uncertain tax positions is based on factors, including, but not limited to, changes in the law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity, and changes in facts or circumstances related to a tax position. The Company evaluates its tax positions on an annual basis.

Comprehensive Loss

Comprehensive loss is the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. The Company's only element of other comprehensive loss in all periods presented was unrealized gains (losses) on available-for-sale securities.

Net Loss per Share

Net income (loss) per share information is determined using the two-class method, which includes the weighted-average number of common stock outstanding during the period and other securities that participate in dividends (a participating security). The Company's redeemable convertible preferred stock are participating securities as defined by ASC 260-10, *Earnings per Share*.

Under the two-class method, basic net income (loss) per share applicable to common stockholders is computed by dividing the net income (loss) applicable to common stockholders by the weighted-average number of common shares outstanding for the reporting period. Diluted net income (loss) per share is computed using the more dilutive of (1) the two-class method or (2) the if-converted method. The Company allocates net income first to preferred stockholders based on dividend rights under the Company's articles of incorporation and then to preferred and

common stockholders based on ownership interests. Net losses are not allocated to preferred stockholders as they do not have an obligation to share in the Company's net losses.

For purposes of the diluted net loss per share calculation, preferred stock, unvested restricted common stock and stock options are considered to be potentially dilutive securities, but are excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive and therefore, basic and diluted net loss per share were the same for all periods presented.

The following table sets forth the outstanding potentially dilutive securities that have been excluded in the calculation of diluted net loss per share because to do so would be anti-dilutive (in common stock equivalent shares):

	As of December 31,		
	2016	2015	2014
Series A convertible preferred stock	12,737,124	12,737,124	8,672,084
Series B convertible preferred stock	6,715,103	6,715,103	—
Series B-1 preferred stock	2,831,463	—	—
Outstanding stock options	4,289,693	2,959,922	1,123,960
Unvested restricted common stock	94,254	748,033	1,158,518
Total	26,667,637	23,160,182	10,954,562

Concentrations of Credit Risk and Off-balance Sheet Risk

The Company has no significant off-balance-sheet risk such as foreign exchange contracts, option contracts, or other foreign hedging arrangements. Financial instruments that potentially expose the Company to concentrations of credit risk primarily consist of cash, cash equivalents, and marketable securities. The Company places its cash and cash equivalents in institutional money market funds.

Segment Information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision-maker in deciding how to allocate resources and assess performance. The Company and the Company's chief operating decision-maker, the Company's chief executive officer, views the Company's operations and manages its business as a single operating segment, which is the business of discovering and developing cancer immunotherapies.

New Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements in ASC 605-25, *Multiple-Element Arrangements* and most industry-specific guidance. The new standard requires that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The update also requires additional disclosure about the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. This new guidance will be effective for annual reporting periods (including interim reporting periods within those years) beginning January 1, 2018. Early adoption in 2017 is permitted. Companies have the option of applying this new guidance retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying this update recognized at the date of initial application. We currently anticipate adoption of the new standard effective January 1, 2018 under the modified retrospective method. The Company is in the process of determining the impact of the Revenue ASUs on its financial statements; however, the adoption of the Revenue ASUs is expected to have a significant impact on the Company’s notes to consolidated financial statements and its internal controls over financial reporting.

In August 2014, the FASB issued ASU No. 2014-15 *Presentation of Financial Statements—Going Concern*, which requires management to assess an entity's ability to continue as a going concern every reporting period, and provide certain disclosures if management has substantial doubt about the entity's ability to operate as a going concern, or an express statement if not, by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. The Company has adopted ASU 2014-15 effective December 31, 2016 which had no impact on the Company's consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases*, ("ASU 2016-02"), which requires a lessee to recognize assets and liabilities on the balance sheet for operating leases and changes many key definitions, including the definition of a lease. The new standard includes a short-term lease exception for leases with a term of 12 months or less, as part of which a lessee can make an accounting policy election not to recognize lease assets and lease liabilities. Lessees will continue to differentiate between finance leases (previously referred to as capital leases) and operating leases using classification criteria that are substantially similar to the previous guidance. The new standard will be effective beginning January 1, 2019, and early adoption is permitted for public entities. The Company is currently evaluating the potential impact ASU 2016-02 may have on its financial position and results of operations.

In March 2016, the FASB issued ASU No. 2016-09, Compensation—Stock Compensation, which amends ASC Topic 718, Compensation—Stock Compensation. The new standard identifies areas for simplification involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the consolidated statements of cash flows. The new standard will be effective for the Company on January 1, 2017. The Company will adopt the simplification guidance related to the accounting for forfeitures and will recognize gross stock-based compensation expense with actual forfeitures recognized as they occur. The adoption of this standard is expected to impact the income tax footnote disclosures and is not expected to have a material impact on the Company's consolidated financial statements.

3. Celgene Collaboration Agreement

In July 2016, the Company entered into a Master Research and Collaboration Agreement with Celgene Corporation ("Celgene") (the "Celgene Collaboration Agreement"). The primary goal of the collaboration is to co-develop and co-commercialize innovative biologic immunotherapies that either activate or suppress the immune system by binding to targets identified by leveraging the Company's Translational Science Platform. Under the Celgene Collaboration Agreement, the Company granted Celgene exclusive options to develop and commercialize the Company's lead product candidate, JTX-2011, and up to four early-stage programs (referred to as "Lead and Other Programs"), consisting of targets to be selected from a pool of certain B cell, T regulatory cell and tumor-associated macrophage targets. Additionally, Celgene has an exclusive option to develop and commercialize the Company's product candidate JTX-4014, which, upon exercise of such option, will be a shared program that may be used by both parties in and outside of the collaboration. Prior to Celgene exercising any of its options, the Company is responsible for all research and development activities under the Celgene Collaboration Agreement.

The Company received a non-refundable upfront cash payment of $225.0 million and $36.1 million from the sale of 10,448,100 shares of Series B-1 preferred stock upon execution of the Celgene Collaboration Agreement and Series B-1 Preferred Stock Purchase Agreement. If Celgene elects to exercise any of the program options, Celgene will pay the Company an option-exercise fee of $10.0 million to $60.0 million that varies by program, with an aggregate of $182.5 million if Celgene exercises all six program options. The initial research term of the collaboration is four years, which can be extended, at Celgene's option, annually for up to three additional years for additional consideration that ranges from $30.0 million to $45.0 million per year, for an aggregate of $120.0 million if the term is extended for an additional three years.

Worldwide Development Cost and U.S. Operating Profit and Loss Sharing

Upon the exercise of each program option, the parties will enter into a co-development and co-commercialization agreement ("Co-Co Agreements") or, in the case of JTX-4014, a license agreement ("JTX-4014 License Agreement") that governs the development and commercialization of the applicable program. Although the

agreements will not be executed unless and until Celgene exercises an option, the parties have agreed to the terms of the Co-Co Agreements and the JTX-4014 License Agreement as part of the Celgene Collaboration Agreement.

Under the Co-Co Agreements and the JTX-4014 License Agreement, the Company will share with Celgene the U.S. profits or losses and development costs on such collaboration program as follows:

- The Company will retain 60 percent of the U.S. operating profits or losses arising from commercialization of JTX-2011, with 40 percent allocated to Celgene.
- The Company will retain 25 percent of the U.S. operating profits or losses arising from commercialization of the first program (the "Lead Program"), other than JTX-2011 or JTX-4014, for which an IND application is filed under the collaboration, with 75 percent allocated to Celgene. Celgene has a one-time right to substitute and swap the economics and governance of this program with that of another program for which it exercises an option (other than JTX-2011 and JTX-4014).
- The Company and Celgene will equally share U.S. operating profits or losses arising from commercialization of up to three additional programs (other than JTX-2011, JTX-4014 or the Lead Program) (the "Other Programs").
- The Company and Celgene will share all development costs, other than for JTX-4014, in accordance with the applicable Co-Co Agreements, of which Celgene's portion of the costs range from 67 percent to 85 percent.

If Celgene exercises its option for a program other than JTX-4014, the Company will enter into a Co-Co Agreement, pursuant to which Celgene will have the exclusive right to develop and commercialize the products arising out of such collaboration program outside of the United States, and the Company will be eligible to receive tiered royalties ranging from a high single digit to mid-teen percentage rate on net product sales outside of the United States. Under each Co-Co Agreement, the Company will also have the right to opt out of profit sharing and instead receive milestones and royalties.

Furthermore, if Celgene exercises its option for JTX-4014, the Company will enter into the JTX-4014 License Agreement, pursuant to which Celgene and the Company will each have equal rights to develop and commercialize JTX-4014 in combination with other proprietary molecules in their or the Company's respective pipelines or in combination with products arising out of collaboration programs. Subject to terms specified in the license agreement for JTX-4014, the party owning the proprietary molecule that is combined with JTX-4014, if such molecule does not arise from a collaboration program with Celgene, will be solely responsible for all development and commercialization costs related to such combination. If JTX-4014 is combined with a product arising from a collaboration program, then the parties will share costs and, if co-packaged or co-formulated, profits or losses in accordance with the Co-Co Agreements for such other product.

Milestones and Royalties

Under the Co-Co Agreements and the JTX-4014 License Agreement, Celgene is required to pay the Company for specified development, regulatory and commercial milestones, if achieved, up to approximately $2.3 billion, across all collaboration programs. The development milestones are payable on initiation of certain clinical trials and range from $32.5 million to $105.0 million, per program, with an aggregate total of $290.0 million. The regulatory approval milestones are payable upon regulatory approval in the United States and outside the United States and range from $7.5 million to $50.0 million per milestone, with an aggregate total of $700.0 million. The commercial milestones are payable upon achievement of specified aggregate product sales outside the United States for each program and range from $40.0 million to $200.0 million per milestone, with an aggregate total of $1.270 billion. The Company is also eligible to receive royalties on product sales outside the United States ranging from high single digit to mid-teen royalties.

Exercise of Options

Celgene may exercise its option for a program at any time until the expiration of an option term for that program. For each program, the option term ends 45 to 60 days following Celgene's receipt of a data package that includes certain information relating to the program's research and development activities. The data package for a program may be delivered to Celgene after the applicable development milestone for such program has been achieved.

Depending on the program, the applicable development milestone is (1) IND acceptance, (2) availability of certain Phase 1a data, or (3) availability of certain Phase I/II data. If Celgene fails to exercise its option during the option term for a program, the Company will retain the rights to such program. If Celgene exercises its option for a program other than JTX-4014, then the Company will enter into a Co-Co Agreement with Celgene for such program in substantially the form attached to the agreement as an exhibit. Under the co-development and co-commercialization agreement for JTX-2011 and one additional program for which Celgene opts in that is not JTX-4014, the Company will be responsible for leading development and commercialization activities in the United States and Celgene will be responsible for development and commercialization activities outside the United States. For all other additional programs for which Celgene opts in, other than JTX-4014, Celgene will lead development and commercialization activities worldwide. If Celgene exercises its option for JTX-4014, the Company and Celgene will enter into a license agreement, in substantially the form attached to the agreement as an exhibit, pursuant to which the Company and Celgene will both be able to equally access JTX-4014 for combinations within each other's portfolios and with other molecules that are subject to the agreement, subject to joint governance. Once Celgene opts in with respect to a given program, Celgene and the Company must each use commercially reasonable efforts to develop and commercialize the corresponding product in the U.S.

Termination

At any point during the Celgene Collaboration Agreement, including during the research, development and clinical trial process, or during the term of the applicable co-development and co-commercialization or license agreement, respectively, Celgene can terminate the applicable agreement with the Company in its entirety, or with respect to any program under the Celgene Collaboration Agreement, upon 120 days' notice and can terminate the entire agreement with the Company in connection with a material breach of the agreement by the Company that remains uncured for 90 days.

Exclusivity

During the Celgene Collaboration Agreement's research term (i.e., for four years plus up to three one-year extensions that Celgene may elect), the Company may not alone, or with a third party, research, develop, manufacture or commercialize a biologic that binds to a defined pool of B cell, T regulatory cell or tumor-associated macrophage targets that meet certain criteria, termed an exclusive target, and inhibit, activate or otherwise modulate the activity of such exclusive target. In addition, if Celgene exercises its option for a program within the Celgene Collaboration Agreement, other than JTX-4014, then until termination or expiration of the applicable Co-Co Agreement for such program, the Company may not directly or indirectly research, develop, manufacture or commercialize, outside of the Celgene Collaboration Agreement, any biologic with specified activity against that program's collaboration target.

Accounting Analysis

The Celgene Collaboration Agreement includes six deliverables: (i) research and development services for the product candidate, JTX-2011 ("JTX-2011 Research Services") (ii) research and development services for the product candidate, JTX-4014 ("JTX-4014 Research Services") (iii) research and development services associated with the Lead Program and Other Programs ("Lead and Other Program Research Services"), (iv) research and development services associated with target screening ("Target Screening Services"), (v) non-transferable, sub-licensable and non-exclusive licenses to use the Company's intellectual property and collaboration intellectual property to conduct research activities, on a program by program basis ("Research Licenses"), and (vi) participation in the joint steering committee ("JSC").

The six program options are considered substantive as the Company is at risk with regard to whether Celgene will exercise the options as a result of the significant uncertainties related to drug discovery, research, and development as all options are for targets that have significant development risk. Additionally, there is also significant uncertainty regarding Celgene's exercise of the option for JTX-4014, although not a novel immunotherapy agent, it has significant development risk associated with the Company's ability to advance its development in a commercially viable manner in a short time frame. The research term extensions are also considered substantive options based upon the risk that Celgene will exercise the research term extension. In addition, there are substantial option exercise payments payable by Celgene upon exercise of each option that are not priced at a significant and incremental discount. Accordingly, the substantive options are not considered deliverables at the inception of the arrangement and the associated option exercise payments are not included in allocable arrangement consideration.

The Company has also determined that any obligations which are contingent upon the exercise of a substantive option are not considered deliverables at the outset of the arrangement.

The Target Screening Services and participation in the JSC deliverables each have standalone value from the other undelivered elements and therefore are separate units of accounting. The Company determined that the research licenses for the JTX-2011 and JTX-4014 programs do not have value to Celgene on a standalone basis primarily as a result of the fact that the research licenses allow Celgene to evaluate the results of the research and development services performed by the Company and the right to perform its duties under the agreement, but do not provide Celgene with any commercialization rights. Therefore, the research licenses do not have value to Celgene without the performance of the JTX-2011 Research Services and JTX-4014 Research Services and therefore are not separable from the JTX-2011 Research Services and JTX-4014 Research Services. The JTX-2011 Research Services are separate and distinct from the JTX-4014 Research Services, and therefore, the research license and the JTX-2011 Research Services are a separate combined unit of accounting and the research license and the JTX-4014 Research Services are a separate combined unit of accounting. The Lead and Other Programs Research Services deliverable does not include separate and distinct services and Celgene can use the Lead and Other Programs Services for its intended purpose without receipt of the research licenses that could be delivered for the Lead and Other Programs. The Lead and Other Programs Research Services therefore have been combined with the licenses that could be delivered for the Lead and Other Programs, which have an insignificant value, as a separate combined unit of accounting.

The allocable arrangement consideration consists of the upfront fee of $225.0 million. Celgene also purchased 10,448,100 shares of Series B-1 convertible preferred stock for gross proceeds of $36.1 million. The Company determined the shares of Series B-1 convertible preferred stock were sold at fair value. Therefore, the proceeds from the issuance of Series B-1 convertible preferred stock did not impact the arrangement consideration to be allocated to the units of accounting. The Company has allocated the allocable arrangement consideration based on the relative selling price of each unit of accounting. For all units of accounting, the Company determined the selling price using the best estimate of selling price, or BESP. The Company determined the BESP based on internal estimates of the costs to perform the services, including expected internal and external costs for services and supplies, adjusted to reflect a reasonable profit margin. The total cost of the research and development services reflects the nature of the services to be performed the Company's best estimate of the length of time required to perform the services. The Company determined that the BESP of the participation in the JSC was insignificant and therefore no consideration was allocated to this unit of accounting. Similarly, given the limited use of the research licenses, which is only required in the event Celgene performs research activities under the Celgene Collaboration Agreement which is not expected to be significant, the Company determined the estimated selling price for the research licenses were also insignificant. Therefore, the total allocable arrangement consideration has been allocated to the JTX-2011 Research Services, the JTX-4014 Research Services, the Lead and Other Program Services and the Target Screening Services.

The Company is recognizing the consideration allocated to each unit of accounting on a straight-line basis, as there is no discernible pattern or objective measure of performance of the services, over the estimated performance period. The estimated performance period reflects the Company's estimate of the period over which it will perform the separate and distinct research and development services to deliver a pre-defined data package to Celgene for each program subject to an option. The performance periods for each unit of accounting range from twelve months to four years.

The Company evaluated the milestones in the Celgene Collaboration Agreement, the Co-Co agreements, and the JTX-4014 License Agreement to determine if they are substantive. In evaluating if a milestone is substantive, the Company assesses whether: (i) the consideration is commensurate with either the Company's performance to achieve the milestone or the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the Company performance to achieve the milestone, (ii) the consideration relates solely to past performance and (iii) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. All development and regulatory milestones in the Celgene Collaboration Agreement, the Co-Co agreements, and the JTX-4014 License Agreement are considered substantive on the basis of the contingent nature of the milestone, specifically reviewing factors such as the scientific, clinical, regulatory, and other risks that must be overcome to achieve the milestone as well as the level of effort and investment required. Accordingly, such amounts will be recognized in the period in which the associated milestone is achieved, assuming all other revenue

recognition criteria are met. All commercial milestones will be accounted for in the same manner as royalties and recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

During the year ended December 31, 2016, under the Celgene Collaboration Agreement, the Company recognized $37.2 million of the $225.0 million upfront payment as revenue during the period. As of December 31, 2016, the Company has $187.8 million of deferred revenue, which is classified as either current or net of current portion in the accompanying consolidated balance sheets based on the period over which the services are expected to be performed.

4. Fair Value Measurements

Assets measured at fair value as of December 31, 2016 are as follows (in thousands):

	December 31, 2016	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)
Assets				
Money market funds, included in cash and cash equivalents	$ 44,848	$ 44,848	$ —	$ —
Marketable securities:				
Corporate debt securities	92,408	—	92,408	—
U.S. Treasuries	120,118	120,118	—	—
	$ 257,374	$ 164,966	$ 92,408	$ —

Assets measured at fair value as of December 31, 2015 are as follows (in thousands):

	December 31, 2015	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)
Assets				
Money market funds, included in cash and cash equivalents	$ 45,161	$ 45,161	$ —	$ —

For the year ended December 31, 2014 and through the final closing date in April 2015, the Company estimated the fair value of the preferred stock Tranche Liability at the time of issuance and subsequently remeasured it using a probability-weighted present value model that considered the probability of closing each tranche (varying from 60% to 100% based on the milestone and measurement date), and the estimated future value of Series A convertible preferred stock at closing (varying from $1.01 to $1.88 based on the expected tranche closing date). The Company converted future values to present value using a discount rate (16.8%) appropriate for probability adjusted cash flows. The estimates are based, in part, on subjective assumptions. Changes to these assumptions can have a significant impact on the fair value of the preferred stock tranche liability.

As of April 2015, the preferred stock tranche liability was reclassified to convertible preferred stock and, as such, no preferred stock tranche asset or liability was outstanding subsequent to April 2015.

The following table provides a reconciliation of all assets and liabilities measured at fair value using Level 3 significant unobservable inputs (in thousands):

	Preferred stock tranche liability
Balance at December 31, 2014	$ (3,584)
Changes in fair value	1,859
Reclassification to preferred stock	1,725
Balance at December 31, 2015	$ —

Please refer to Note 9, "Convertible Preferred Stock," for further information about the preferred stock tranche liability.

5. Marketable Securities

The fair value of available-for-sale marketable securities by type of security are as follows (in thousands):

	December 31, 2016		
	Amortized cost	Unrealized gains/ (losses)	Fair value
Cash equivalents and short-term investments:			
Money market funds, included in cash and cash equivalents	$ 44,848	$ —	$ 44,848
Corporate debt securities	92,549	(141)	92,408
U.S. Treasuries	12,020	(18)	12,002
Total cash equivalents and short-term investments	149,417	(159)	149,258
Long-term investments:			
Corporate debt securities	—	—	—
U.S. Treasuries	108,390	(274)	108,116
Total long-term investments	108,390	(274)	108,116
Total marketable securities	$ 257,807	$ (433)	$ 257,374

At December 31, 2016, short-term investments mature within twelve months and long-term investments mature within one to two years. The Company measures the fair value of money market funds and U.S. Treasuries based on quoted prices in active markets for identical securities. Marketable securities also includes corporate debt securities which are valued either based on recent trades of securities in inactive markets or based on quoted market prices of similar instruments and other significant inputs derived from or corroborated by observable market data.

The aggregate fair value of securities held by the Company in an unrealized loss position for less than twelve months as of December 31, 2016 was $192.3 million. The Company did not hold any securities for more than twelve months as of December 31, 2016. The Company has the intent and the ability to hold such securities in an unrealized loss position until recovery. The Company determined that there was no material change in the credit risk of the above investments. As a result, the Company determined it did not hold any investments with any other-than-temporary impairment as of December 31, 2016.

6. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following (in thousands):

	As of December 31,	
	2016	2015
Prepaid expenses	$ 1,310	$ 545
Interest receivable on marketable securities	709	—
Other current assets	510	5
Total prepaids and other current assets	$ 2,529	$ 550

7. Property and Equipment, Net

Property and equipment and related accumulated depreciation are as follows (in thousands):

	Estimated useful life in years	As of December 31, 2016	As of December 31, 2015
Laboratory equipment	5	$ 6,275	$ 3,487
Furniture and office equipment	4	226	226
Computer equipment	3	492	236
Leasehold improvements	Shorter of lease term or asset life	3,997	3,997
Construction in progress		1,048	—
		12,038	7,946
Less: accumulated depreciation		(4,797)	(2,853)
Property and equipment, net		$ 7,241	$ 5,093

Depreciation expense for the years ended December 31, 2016, 2015 and 2014 was $1.9 million, $1.5 million and $1.1 million, respectively.

8. Accrued Expenses

Accrued expenses consist of the following (in thousands):

	As of December 31, 2016	As of December 31, 2015
Employee compensation and benefits	$ 2,651	$ 1,792
External research and professional services	1,923	1,438
Lab consumables and other	1,281	157
Total accrued expenses	$ 5,855	$ 3,387

9. Convertible Preferred Stock

The Company's Series A, Series B, and Series B-1 convertible preferred stock, together referred to as "preferred stock," has been classified as temporary equity on the accompanying consolidated balance sheets in accordance with authoritative guidance for the classification and measurement of redeemable securities as the preferred stock is redeemable upon the occurrence of a deemed liquidation event.

Upon completion of the Company's IPO, all outstanding preferred stock as of December 31, 2016 was automatically converted into aggregate of 22,283,690 shares.

Series A Preferred Stock

At December 31, 2016, 47,000,000 shares of Series A convertible preferred stock ("Series A preferred stock") were authorized, issued and outstanding. These shares were issued at various closing dates between 2013 and 2015 for $1.00 per share. The shares were issued in exchange for cash proceeds of $44.6 million, net of issuance costs of $0.1 million and the exchange of approximately $2.3 million in outstanding convertible promissory notes, including accrued interest.

Tranche Rights Issued with Series A Preferred Stock

Included in the terms of the Series A Preferred Stock Purchase Agreement were Tranche Rights. The Tranche Rights obligated the investors in Series A preferred stock to purchase, and the Company to sell, an additional 10,000,000 shares of Series A preferred stock at $1.00 per share contingent upon the initiation of certain research and development programs and initiation of translational science ("Tranche Right I"). In addition, the investors were obligated to purchase, and the Company was obligated to sell, an additional 20,000,000 shares of Series A preferred stock upon developing product candidates and achieving certain clinical milestones ("Tranche Right II"). In

addition, the Tranche Rights provided the investors with the ability to purchase these additional shares at their option at any time. The Tranche Rights were transferable by the investors, subject to approval by the Board.

The Company concluded that the Tranche Rights met the definition of a freestanding financial instrument, as the Tranche Rights were legally detachable and separately exercisable from the Series A preferred stock. Therefore, the Company allocated the net proceeds between the Tranche Rights and the Series A preferred stock. Since the Series A preferred stock was contingently redeemable upon the occurrence of a deemed liquidation event, the Tranche Rights are classified as an asset or liability under ASC Topic 480 *Distinguishing Liabilities from Equity* and are initially recorded at fair value. The Tranche Rights were measured at fair value at each reporting period. Since the Tranche Rights were subject to fair value accounting, the Company allocated the proceeds to the Tranche Rights based on the fair value at the date of issuance with the remaining proceeds being allocated to the Series A preferred stock. The estimated fair value of the Tranche Rights was determined using a probability-weighted present value model that considers the probability of closing a tranche, the estimated future value of Series A preferred stock at each closing and the investment required at each closing. Future values were converted to present value using a discount rate appropriate for probability-adjusted cash flows.

The following table summarizes the initial value of the Tranche Rights included in the Series A Preferred Stock Purchase Agreement (in thousands):

		Fair value of tranche right asset (liability)
Tranche Right I	$	1,229
Tranche Right II		(6,484)
Total value of Tranche Rights	$	(5,255)

Tranche Right I was initially recorded as an asset of $1.2 million as the purchase price of the additional shares was greater than the estimated value of the Series A preferred stock at the expected settlement date. Conversely, Tranche Right II was initially recorded as a liability of $6.5 million as the purchase price of the additional shares was less than the estimated price of the Series A preferred stock at the expected settlement date.

In February 2014, the Company amended the Tranche Rights, which changed the amount and timing of the subsequent closings related to Tranche Right I and Tranche Right II. The shares associated with Tranche Right I were increased by 5,000,000 to 15,000,000 and the shares associated with Tranche Right II were decreased by 5,000,000 to 15,000,000 while the purchase price per share remained unchanged at $1.00. Additionally, upon the achievement of the specified milestones, Tranche Right I and Tranche Right II would each be closed in two separate transactions whereby 50% of the commitment would be closed upon the achievement of the milestones and the remaining 50% commitment would be closed within six months of achieving the milestones. As a result of these modified Tranche Rights, the Company recognized income of $3.4 million related to the mark to market adjustment at the time of the amendment.

The Company issued 15,000,000 additional shares under Tranche Right I, in two separate closings during the year ended December 31, 2014 with total proceeds of $15 million, net of issuance costs. Prior to each closing, any changes in the value of Tranche Right I were recorded as other financing expense. The fair value of the portion of the Tranche Right I settled at each closing was reclassified to Series A preferred stock. The Company recognized income of $1.3 million, inclusive of the February 2014 amendment's impact of $1.3 million, related to the mark to market of Tranche Right I during the year ended December 31, 2014, which is included in other financing income. The Company recognized income of $4.2 million, inclusive of the February 2014 amendment's impact of $2.1 million, related to the mark-to-market of Tranche Right II during the year ended December 31, 2014, which is included in other financing income.

In January and April 2015, Tranche Right II was settled in two separate closings, prior to achieving the contingent milestones. The Company recognized income of $1.9 million related to the mark to market of Tranche Right II during the period ended December 31, 2015, which is included in other financing income. The fair value of the Tranche Right II settled at closing was reclassified to Series A preferred stock. The initial carrying amount of the Series A preferred stock issued upon the closing of Tranche Right II amounted to approximately $16.7 million which exceeds

the redemption value of $15.0 million; therefore, the carrying value is not being subsequently adjusted until such time as the redemption value exceeds the initial carrying amount.

Series A Preferred Stock Extinguishment

In April 2015, in connection with the issuance of the Series B convertible preferred stock ("Series B preferred stock"), the rights and preferences of the Series A preferred stock were modified and resulted in two primary changes. First, the right at the election of the holder to redeem the Series A preferred stock beginning in February 2020 was removed and the right to participate in liquidating distributions with the common stock holders on a pro rata basis was also removed. The removal of these two features resulted in a fundamental change to the nature of the preferred shares. As a result, the Company recognized a loss on extinguishment of the Series A preferred stock in the amount of $2.1 million, which caused the Series A preferred stock's carrying value to equal its fair value of $47.1 million after the modification. As the amended Series A preferred stock is no longer redeemable at the option of the holder in February 2020, and is only contingently redeemable upon the occurrence of a deemed liquidation event, the Company will not subsequently adjust the carrying value of the Series A preferred stock until such time that it is probable that the Series A preferred stock will be redeemed.

Series B Preferred Stock

At December 31, 2016, 24,778,761 shares of Series B preferred stock were authorized, issued and outstanding. These shares were issued for $2.26 per share. This issuance resulted in cash proceeds of $55.8 million, net of issuance costs of $0.2 million.

Series B-1 Preferred Stock

At December 31, 2016, 10,448,100 shares of Series B-1 preferred stock were authorized, issued and outstanding. These shares were issued for $3.46 per share. This issuance resulted in cash proceeds of $36.1 million, net of issuance costs of $0.1 million.

Preferred Stock

The rights, preferences, and privileges of the preferred stock at December 31, 2016 are listed below:

Conversion

Shares of preferred stock are convertible into such number of fully paid and non-assessable shares of common stock as determined by dividing the original issuance price by the conversion price at the time in effect. The original conversion price is $1.00 for Series A preferred stock, $2.26 for Series B preferred stock, and $3.46 for Series B-1 preferred stock and the post-split conversion price is $3.69 for Series A preferred stock, $8.3394 for Series B preferred stock, and $12.7674 for Series B-1 preferred stock. Shares of preferred stock are subject to adjustments to reflect the issuance of common stock, options, warrants, or other rights to subscribe for or to purchase common stock for a consideration per share, less than the conversion price then in effect and subsequent stock dividends, stock splits, combinations, or recapitalizations.

Conversion is at the option of the Series A, Series B, and Series B-1 preferred stockholders, although conversion is automatic upon the earlier of the consummation of an underwritten public offering resulting in gross proceeds to the Company of at least $35 million or, separately for each class of preferred stock, the vote or written consent of the majority of the then outstanding shares of preferred stock. Additionally, shares of Series B-1 preferred stock shall automatically convert upon the vote or written consent of the majority of the then outstanding shares of Series A preferred stock and Series B preferred stock, each voting as a separate class.

Dividends

Holders of preferred stock are entitled to receive, before any cash is paid out or set aside for any common stock, dividends at $0.08, $0.18, and $0.28 per share for Series A, Series B, and Series B-1 preferred stock, respectively, subject to adjustment for stock splits; stock dividends; or, in certain circumstances, the sale of common stock at a price below the original issue price of the preferred stock. The dividends are cumulative, and are payable only when and if declared by the board of directors of the Company. No dividends have been declared since inception. Aggregate cumulative dividends at December 31, 2016 were $19.2 million.

Liquidation Preference

Holders of the Series B and Series B-1 preferred stock have preference, on a pari passu basis, in the event of a liquidation, dissolution, sale, or winding up of the Company equal to the greater of original issue price per share, plus any accrued but unpaid dividends whether or not declared, plus any dividends declared but unpaid thereon or such amount per share as would have been payable had all shares of Series B and Series B-1 preferred stock been converted into common stock immediately prior to such liquidation. Thereafter, the holders of Series A preferred stock shall have preference equal to the greater of original issue price per share, plus any accrued but unpaid dividends whether or not declared, plus any dividends declared but unpaid thereon or such amount per share as would have been payable had all shares of Series A preferred stock been converted into common stock immediately prior to such liquidation.

If the assets of the Company are insufficient to pay the Series A, Series B, and Series B-1 preferred stock preferential amounts the remaining assets shall be distributed ratably among such holders in proportion to their aggregate liquidation preference amounts.

Redemption

As of December 31, 2016, the preferred stock is only redeemable upon the occurrence of a contingent deemed liquidation event, which includes a merger with a change in ownership of more than 50%, or a sale of substantially all of the assets. Prior to being modified in April 2015, the Series A preferred stock was redeemable beginning in February 2020, at the option of the holder.

Voting Rights

Holders of the preferred stock are entitled to vote as a single class with the holders of common stock and shall have one vote for each equivalent common share into which the preferred stock is convertible. A majority vote of the preferred stockholders is required in order to amend the certificate of incorporation or bylaws; reclassify common stock or establish another class of stock; create or authorize additional shares of preferred stock; effect a sale, liquidation, or merger of the Company; repurchase or redeem any capital stock; or engage in any action that would adversely affect the holders of the preferred stock.

The Company assessed the Series A, Series B, and Series B-1 preferred stock for any beneficial conversion features or embedded derivatives, including the conversion option that may require bifurcation from the Series A, Series B or Series B-1 preferred stock and receive separate accounting treatment. The Company concluded that none of the features required bifurcation as a derivative liability.

10. Stockholder's Deficit

Common Stock

The holders of the Company's common stock are entitled to receive dividends if and when declared by the Company's Board of Directors. Dividends to the holders of common stock may be declared and paid only after all accrued unpaid preferred stock dividends have been paid according to their respective terms.

Liquidation

After payments of their respective liquidation preferences to the holders of shares of Series A, Series B, and Series B-1 preferred stock, the holders of shares of common stock are entitled to the Company's remaining assets available for distribution to its stockholders in the event of any voluntary or involuntary liquidation, dissolution or winding up of the business or upon occurrence of a deemed liquidation event.

Shares Reserved for Future Issuance

The Company has reserved the following shares of common stock for the potential conversion of outstanding preferred stock:

	As of December 31,	
	2016	2015
Shares reserved for Series A preferred stock outstanding	12,737,124	12,737,124
Shares reserved for Series B preferred stock outstanding	6,715,103	6,715,103
Shares reserved for Series B-1 preferred stock outstanding	2,831,463	—
Shares reserved for vesting of restricted stock awards under the founder agreements	44,035	567,408
Shares reserved for vesting of restricted stock awards under the 2013 Stock Option and Grant Plan	50,217	180,626
Shares reserved for exercises of outstanding stock options issued under the 2013 Stock Option and Grant Plan	4,289,693	2,959,922
Shares reserved for issuances under the 2013 Stock Option and Grant Plan	243,758	141,862
	26,911,393	23,302,045

11. Stock-based Compensation

2013 Stock Option and Grant Plan

In February 2013, the Company adopted the Jounce Therapeutics, Inc. 2013 Stock Option and Grant Plan (the "2013 Plan"), as amended and restated, under which it may grant restricted stock awards, incentive stock options ("ISOs") and non-statutory stock options to purchase up to 2,032,520 shares of common stock to eligible employees, officers, directors, and consultants.

In January 2015, the Company amended the 2013 Plan to allow for the issuance of up to 2,086,720 shares of common stock. In April 2015, the Company amended the 2013 Plan to allow for the issuance of up to 3,277,668 shares of common stock. In July 2015, the Company amended the 2013 Plan to allow for the issuance of up to 3,684,172 shares of common stock. In March 2016, the Company amended the 2013 Plan to allow for the issuance of up to 4,111,445 shares of common stock. In October 2016, the Company amended the 2013 Plan to allow for the issuance of up to 5,141,257 shares of common stock.

During the year ended December 31, 2016, the Company issued stock options under the 2013 plan. During the years ended December 31, 2015 and 2014, the Company issued restricted stock and stock option awards under the 2013 Plan.

The terms of restricted stock and stock option awards agreements, including vesting requirements, are determined by the Board of Directors, subject to the provisions of the 2013 Plan. Options and restricted stock awards granted by the Company to employees and directors generally vest ratably over four years. Awards granted to new employees vest ratably over four years with 25% vesting on the first anniversary of employment and the remaining 75% vesting ratably, on a quarterly or monthly basis, over the remaining three years. Awards granted to non-employees generally vest monthly over one year.

No restricted common stock awards were issued during the year ended December 31, 2016. During the year ended December 31, 2015 and 2014, the Company issued 27,099 and 40,650 shares of restricted common stock at an original purchase price of $4.02 and $0.48 per share, respectively, under the 2013 Plan to employees and directors. In addition, during the year ended December 31, 2014, the Company issued 5,013 shares of restricted common stock at an original purchase price of $0.48 under the 2013 Plan to non-employees. During the year ended December 31, 2016, the Company issued 1,500,371 stock options to employees and directors and no stock options to non-employees. During the year ended December 31, 2015, the Company granted 1,846,281 stock options to employees and directors and 12,195 stock options to non-employees. As of December 31, 2016, and 2015 there were 243,758 and 141,862 shares available for future issuance under the 2013 Plan, respectively.

The restricted common shares issued under the terms of the 2013 Plan allows the Company, at its discretion, to repurchase unvested shares at the initial purchase price if the employees or non-employees terminate their service relationship with the Company. The shares are recorded in stockholders' deficit as they vest.

Founder Awards

From December 2012 to February 2013, the Company issued 1,395,659 shares of restricted common stock to non-employee founders (the "Founders"). The shares were issued under the terms of the respective restricted stock agreements and allow the Company, at its discretion, to repurchase unvested shares if the Founders terminate their relationship with the Company. Of the total restricted shares awarded to the Founders, 1,043,357 shares generally vest over one to four years, based on each Founder's continued service relationship with the Company in varying capacity as advisors, as prescribed by the grantee's individual restricted stock purchase agreements. The remaining 352,302 of the shares issued begin vesting upon the determination by the board of directors of a Founder's achievement of certain performance objectives, as set forth in the agreements. When and if the performance criteria are satisfied, the full amount of the restricted shares shall vest irrespective of the continuation of the Founder's future service relationship with the Company.

These performance criteria are linked to certain milestones specific to the Company's research and development goals, including but not limited to preclinical and clinical development milestones related to the Company's product candidates. Stock-based compensation expense associated with these performance-based awards is recognized when the achievement of the performance condition is considered probable, based on management's judgment.

In March 2014, December 2015, and September 2016, certain performance conditions were achieved and the associated stock-based compensation expense for the vested shares was recognized in 2014 for 40,650 shares, 2015 for 40,650 shares, and 2016 for 216,802 shares. At December 31, 2016, all performance-based awards were vested and therefore there are no awards outstanding that have performance conditions. In addition, restricted stock awards granted to two non-employee Founders contain options that enable the Founders to sell their vested shares back to the Company at fair value upon both i) the termination of the consulting agreement between the Founder and the Company for any reason and ii) the determination by the Founder's employer that the ownership of the restricted stock is in violation of the employer's conflict of interest policy. As such, the occurrence of these events is outside of the Founders' and the Company's control. Under the classification guidance of ASC 718 and ASC 480, the restricted stock awards are classified as temporary equity. Further in accordance with the measurement guidance in ASC 480, the restricted stock awards are not remeasured until such time as the contingent events become probable. As such, these awards are recorded on the consolidated balance sheet as contingently redeemable common stock, residing in temporary equity. As of December 31, 2016, 2015 and 2014, $1.9 million, $0.7 million and $0.2 million was recorded in temporary equity related to these awards, respectively.

Stock-based Compensation Expense

The total compensation cost recognized in the consolidated statements of operations associated with all stock-based compensation awards granted by the Company is as follows (in thousands):

	Years Ended December 31,		
	2016	**2015**	**2014**
Research and development	$ 4,161	$ 269	$ 252
General and administrative	828	1,083	80
Total stock-based compensation expense	$ 4,989	$ 1,352	$ 332

Restricted Stock

A summary of the status of and changes in unvested restricted stock as of December 31, 2016 and 2015 is presented below:

	Shares		Weighted average grant date fair value per share
Unvested restricted common stock as of December 31, 2015	748,033	$	0.41
Issued	—	$	—
Vested	(537,844)	$	0.30
Repurchased	(115,935)	$	0.37
Unvested restricted common stock as of December 31, 2016	94,254	$	1.14

The expense related to awards granted to employees and non-employees was $28,000 and $3.4 million, respectively, for the year ended December 31, 2016. The expense related to awards granted to employees and non-employees was $40,000 and $907,000, respectively, for the year ended December 31, 2015. The expense related to awards granted to employees and non-employees was $46,000 and $213,000, respectively, for the year ended December 31, 2014.

As of December 31, 2016, the Company had unrecognized stock-based compensation expense related to its unvested restricted stock awards of $0.2 million which is expected to be recognized over the remaining weighted average vesting period of 0.1 years.

The aggregate fair value of restricted stock awards that vested during the years ended December 31, 2016, 2015 and 2014, based on estimated fair values of the stock underlying the restricted stock awards on the day of vesting, was $3.9 million, $1.1 million, and $0.4 million respectively.

Stock Options

A summary of the status of, and changes in, stock options as of December 31, 2016 and 2015, respectively, was as follows:

	Options	Weighted average exercise price	Remaining contractual life (in years)		Aggregate intrinsic value (in thousands)
Outstanding at December 31, 2015	2,959,922	$1.83	9.2	$	10,097
Granted	1,500,371	$7.95			
Exercised	(53,311)	$0.94			
Cancelled or forfeited	(117,289)	$3.00			
Outstanding at December 31, 2016	4,289,693	$3.95			
Vested and expected to vest at December 31, 2016	4,289,693	$3.95	8.7	$	29,269
Exercisable at December 31, 2016	1,298,127	$1.43	8.0	$	12,119

Using the Black-Scholes option pricing model, the weighted average fair value of options granted to employees and directors during the years ended December 31, 2016, 2015 and 2014 was $5.10, $1.70, and $0.48 per share, respectively. The expense related to awards granted to employees was $1.5 million, $0.4 million, and $0.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. The intrinsic value of stock options exercised was $0.3 million and $10,000 for the years ended December 31, 2016 and 2015, respectively.

The fair value of options granted to employees and directors during the years ended December 31, 2016, 2015 and 2014 under the 2013 Plan has been calculated on the date of grant using the following weighted average assumptions:

	Year Ended December 31,		
	2016	2015	2014
Risk-free interest rate	1.4%	1.8%	1.9%
Expected dividend yield	—%	—%	—%
Expected term (in years)	6.1	6.1	6.1
Expected volatility	71.9%	67.0%	70.7%

Using the Black-Scholes option pricing model, the weighted average fair value of options granted to non-employees during the years ended December 31, 2015 and 2014 was $0.85 and $0.48 per share, respectively. The expense related to options granted to non-employees was $24,000 and $5,000 for the years ended December 31, 2015 and 2014, respectively. There were no options granted to non-employees during the year ended December 31, 2016.

The fair value of options granted to non-employees during the year ended December 31, 2015 and 2014 under the 2013 Plan has been calculated on the date of grant using the following weighted average assumptions:

	Year Ended December 31,	
	2015	2014
Risk-free interest rate	2.0%	2.6%
Expected dividend yield	—%	—%
Expected term (in years)	9.8	10.0
Expected volatility	68.7%	69.5%

As of December 31, 2016, the Company had unrecognized stock-based compensation expense related to its unvested stock options of $9.2 million, which is expected to be recognized over the remaining weighted average vesting period of 3.4 years.

12. Commitments and Contingencies

Operating Lease

The Company leases its corporate headquarters under an operating lease that expires on October 15, 2018. The Company has the option to extend the term of the lease for an additional three-year period, at the market rate, by giving the landlord written notice of its election to exercise the extension at least nine months prior to the original expiration of the lease term. The Company is recording rent expense on a straight-line basis through the end of the lease term and has recorded deferred rent on the consolidated balance sheets, accordingly. The lease provided the Company with a tenant improvement allowance of $2.8 million. The Company recorded the tenant improvement allowance incurred as a deferred lease incentive and has amortized the deferred lease incentive through a reduction of rent expense ratably over the lease term. The lease agreement required the Company to pay a security deposit of $0.3 million, which is recorded as restricted cash in other non-current assets in the accompanying consolidated balance sheets.

In March 2015, the Company entered into a three year sublease agreement to lease lab and office facilities at the same location as its corporate headquarters. Under the lease, the Company was required to provide the landlord with a $0.2 million deposit, of which $0.1 million is non-refundable at the end of the lease term provided that the lease is not terminated before it expires. The $0.1 million was recorded as prepaid rent at inception of the lease and is being amortized through rent expense over the term of the lease. The balance of the lease deposit is recorded in current and other non-current assets in the accompanying consolidated balance sheets.

In November 2016, the Company entered into an operating lease agreement to occupy 51,000 square feet of laboratory and office space in Cambridge, Massachusetts. This facility will be the Company's new corporate headquarters. The lease term began on November 1, 2016 and extends to March 31, 2025. The Company has the option to extend the Term for 1 consecutive 5 year period, at the market rate, by giving the landlord written notice of

its election to exercise the extension at least twelve months prior to the original expiration of the lease term. The Company is recording rent expense on a straight-line basis through the end of the lease term and has recorded deferred rent on the consolidated balance sheets, accordingly. The lease provided the Company with a tenant improvement allowance of $0.5 million. The Company recorded the tenant improvement allowance incurred as a deferred lease incentive and is amortizing the deferred lease incentive through a reduction of rent expense ratably over the lease term. The Company provided the landlord with a security deposit in the form of a letter of credit in the amount of $1.3 million, which is recorded as restricted cash in other non-current assets in the accompanying consolidated balance sheets.

The Company recorded rent expense, inclusive of lease incentives, of $1.8 million, $0.9 million and $0.3 million for the years ended December 31, 2016, 2015, and 2014, respectively.

The minimum aggregate future lease commitments at December 31, 2016, are as follows (in thousands):

	Total minimum lease payments
2017	$ 5,252
2018	5,244
2019	4,263
2020	4,391
2021	4,523
Thereafter	15,655
	$ 39,328

License and Other Collaboration Agreements

The Company has entered into various license agreements for certain technology. The Company is obligated to pay annual maintenance payments from zero to $60,000 per year to certain of the licensors, which will be recognized as research and development expense. As of December 31, 2016, the Company could be required to make clinical development, and regulatory milestones of up to $7.1 million and low single-digit royalty payments to licensors based on the net sales of the licensed products. As of December 31, 2016, the Company has incurred $225,000 in milestone payments under these agreements. In addition, two agreements included the issuance of 30,487 shares of common stock to each licensor, which was valued at approximately $29,000. The Company may cancel these agreements at any time by providing 30 to 90 days' notice to the other party and all payments not previously due are no longer owed.

The Company has entered into collaboration agreements with various third parties for research services and access to proprietary technology platforms. Under the terms of one of the collaboration agreements, the Company is required to provide research funding on a per full-time-employee equivalent basis for services received, which is recognized as research and development expense. The Company could be required to make technical, clinical development, and regulatory milestones of up to $12.5 million per product, as well as low single-digit royalty payments paid as a percentage of net sales on a product by product basis. To date no milestone payments or royalties have been incurred under the agreement.

13. 401(k) Savings Plan

The Company has a defined-contribution savings plan under Section 401(k) of the Internal Revenue Code (the "401(k) Plan"). The 401(k) Plan covers all employees who meet defined minimum age and service requirements, and allows participants to defer a portion of their annual compensation on a pretax basis. As currently established, the Company is not required to make and has not made any contributions to the 401(k) Plan to date.

14. Income Taxes

A reconciliation of the expected income tax computed using the federal statutory income tax rate to the Company's effective income tax rate is as follows:

	Year Ended December 31,	
	2016	2015
Income tax computed at federal statutory tax rate	34.0 %	34.0 %
State taxes, net of federal benefit	3.1 %	5.3 %
General business credit carryovers	11.7 %	4.5 %
Non-deductible income (expense)	(11.1)%	0.7 %
Change in valuation allowance	(39.4)%	(44.5)%
Other	1.7 %	—%
	— %	— %

The principal components of the Company's deferred tax assets and liabilities consist of the following at December 31, 2016 and 2015 (in thousands):

	Year Ended December 31,	
	2016	2015
Deferred tax assets:		
Net operating loss carryforwards	$ 24,435	$ 21,711
Tax credit carryforwards	4,039	2,243
Deferred lease incentive	553	551
Deferred rent	426	227
Intangibles	187	89
Accrued expenses and other	1,018	678
Unrealized loss on available-for-sale securities	169	—
Stock-based compensation	293	56
Total deferred tax assets	31,120	25,555
Less valuation allowance	(30,548)	(24,979)
Net deferred tax assets	572	576
Deferred tax liabilities—depreciation	(572)	(576)
Net deferred taxes	$ —	$ —

The Company has incurred net operating losses ("NOL") since inception. As of December 31, 2016 and 2015, the Company had federal NOL carryforwards of $62.4 million and $55.4 million, respectively, and state NOL carryforwards of $61.1 million and $54.5 million, respectively, which expire beginning in 2032 through 2036. As of December 31, 2016 and 2015, the Company had federal research and development tax credit carryforwards of $3.3 million and $1.6 million, respectively, which expire beginning in 2032 through 2034. In addition, as of December 31, 2016 and 2015, the Company had state research and development tax credit carryforwards of $1.1 million and $0.9 million, respectively, which expire beginning in 2027 through 2031.

Management has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which principally comprise NOL carryforwards, tax credit carryforwards, deferred lease incentives and deferred rent. Management has determined that it is more likely than not that the Company will not realize the benefits of its federal and state deferred tax assets, and as a result, a valuation allowance of $30.5 million, and $25.0 million has been established at December 31, 2016 and 2015, respectively. The change in the valuation allowance was $5.6 million and $12.7 million for the years ended December 31, 2016 and 2015, respectively, was primarily due to the additional operating loss.

Net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50% as defined under

Sections 382 and 383 in the Internal Revenue Code. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the Company's value immediately prior to the ownership change. An Internal Revenue Code Section 382 study, completed in August 2016, identified three previous ownership changes for purposes of Internal Revenue Code Section 382. As a result of these ownership changes, the Company's net operating loss and tax credit carryforwards allocable to the periods preceding each such ownership change are subject to limitations under Internal Revenue Code Section 382. Subsequent ownership changes may further affect the limitation in future years.

At December 31, 2016 and 2015, the Company had no unrecognized tax benefits. The Company has not as yet conducted a study of its research and development credit carryforwards. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits, and if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the consolidated statements of operations if an adjustment were required.

Interest and penalty charges, if any, related to unrecognized tax benefits would be classified as income tax expense in the accompanying consolidated statements of operations. As of December 31, 2016 and 2015, the Company has no accrued interest related to uncertain tax positions. Since the Company is in a loss carryforward position, it is generally subject to examination by the U.S. federal, state, and local income tax authorities for all tax years in which a loss carryforward is available.

In November 2015, the FASB issued ASU No. 2015-17 *Balance Sheet Classification of Deferred* Taxes (Topic 740), which requires that deferred tax liabilities and assets be classified as non-current in the consolidated balance sheets. This update is effective for financial statement periods beginning after December 15, 2016, and interim periods within those fiscal years, with early adoption permitted. The Company early adopted ASU 2015-17 in the fourth quarter of 2015. The Company has applied the new standard on a prospective basis, therefore, prior periods were not retrospectively adjusted.

15. Related-party Transactions

In July 2016, the Company entered into a Master Research and Collaboration Agreement (the "Celgene Collaboration Agreement") and a Series B-1 Preferred Stock Purchase Agreement with Celgene Corporation ("Celgene"). Under the Celgene Collaboration Agreement, the Company received a non-refundable upfront payment of $225.0 million. Under the Series B-1 Preferred Stock Purchase Agreement, Celgene purchased 10,448,100 shares of Series B-1 convertible preferred stock ("Series B-1 preferred stock") for $36.1 million (Note 3).

Since March 2012, the Company has received consulting and management services from one of its investors, Third Rock Ventures LLP ("Third Rock Ventures"). The Company incurred expenses of $18,000, $0.1 million, and $0.5 million, for services from Third Rock Ventures during the years ended December 31, 2016, 2015, and 2014, respectively. Of amounts due to Third Rock Ventures for management fees, $1,000, $5,000 and $21,000 were included in accounts payable and accrued expenses at December 31, 2016, 2015 and 2014, respectively.

16. Selected Quarterly Financial Data (unaudited)

The following tables contain selected quarterly financial information from 2016 and 2015. The Company believes that the following information reflects all normal recurring adjustments necessary for a fair statement of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

(in thousands, except per share data)	Three Months Ended March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Total revenue - related party	$ —	$ —	$ 16,908	$ 20,289
Total operating expenses	10,901	12,362	13,093	15,307
Total other income (expense), net	11	14	254	484
Net (loss) gain	$ (10,890)	$ (12,348)	$ 4,069	$ 5,466
Net (loss) gain applicable to common stockholders	$ (12,934)	$ (14,392)	$ 138	$ 258
Net (loss) gain per share applicable to common stockholders - basic	$ (6.81)	$ (7.23)	$ 0.06	$ 0.11
Net (loss) gain per share applicable to common stockholders - diluted	$ (6.81)	$ (7.23)	$ 0.03	$ 0.05

(in thousands, except per share data)	Three Months Ended March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015
Total operating expenses	$ 5,660	$ 6,028	$ 8,568	$ 10,140
Total other expense, net	1,859	1	2	2
Net loss	$ (3,801)	$ (6,027)	$ (8,566)	$ (10,138)
Net loss applicable to common stockholders	$ (4,643)	$ (10,011)	$ (10,639)	$ (12,210)
Net loss per share applicable to common stockholders - basic	$ (3.15)	$ (6.38)	$ (6.41)	$ (6.86)
Net loss per share applicable to common stockholders - diluted	$ (3.15)	$ (6.38)	$ (6.41)	$ (6.86)

17. Subsequent Events

On January 13, 2017 the Company's board of directors and stockholders approved amendments to the Company's certificate of incorporation. Pursuant to these amendments:

- a 1-for-3.69 reverse stock split of the Company's common stock was effected and the conversion price for each series of preferred stock was adjusted, effective as of January 13, 2017; and
- the authorized number of shares of common stock was increased to 160,000,000, effective as of the effectiveness the registration statement of the Company's IPO.

All share and per share amounts in the consolidated financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to the reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital.

The Company's board of directors adopted and the Company's stockholders approved the 2017 stock incentive plan ("2017 Plan"), which became effective immediately prior to the effectiveness of the Company's IPO. The 2017 Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock units, stock appreciation rights and other stock-based awards. The Company's employees, officers, directors and consultants and advisors are eligible to receive awards under the 2017 Plan.

The Company's board of directors adopted and the Company's stockholders approved the 2017 employee stock purchase plan, which became effective upon the closing of the Company's IPO.

On February 1, 2017, the Company closed its IPO of 7,319,750 shares of the Company's common stock at a public offering price of $16.00 per share, including 954,750 shares of common stock issued upon the full exercise by the underwriters of their option to purchase additional shares. The gross proceeds from the IPO were approximately $117.1 million and the net proceeds were approximately $108.9 million, after deducting underwriting discounts and commissions and other offering expenses payable by the Company.

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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.

JOUNCE THERAPEUTICS, INC.

Date: March 10, 2017 By: /s/ RICHARD MURRAY

Richard Murray, Ph.D.
President and Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

Each individual whose signature appears below hereby constitutes and appoints each of Richard Murray, Anna L. Barry, and Kim C. Drapkin and as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K 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/ RICHARD MURRAY Richard Murray, Ph.D.	President, Chief Executive Officer and Director (principal executive officer)	March 10, 2017
/s/ KIM C. DRAPKIN Kim C. Drapkin	Treasurer and Chief Financial Officer (principal financial and accounting officer)	March 10, 2017
/s/ PERRY A. KARSEN Perry A. Karsen	Chairman of the Board of Directors	March 10, 2017
/s/ BARBARA DUNCAN Barbara Duncan	Director	March 10, 2017
/s/ CARY G. PFEFFER Cary G. Pfeffer, M.D.	Director	March 10, 2017
/s/ J. DUNCAN HIGGONS J. Duncan Higgons	Director	March 10, 2017
/s/ ROBERT KAMEN Robert Kamen, Ph.D.	Director	March 10, 2017
/s/ ROBERT TEPPER Robert Tepper, M.D.	Director	March 10, 2017

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EXHIBIT INDEX

Exhibit no.	Exhibit Title
3.1	Fourth Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.2 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
3.2	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
4.2	Amended and Restated Investors' Rights Agreement by and among the Registrant and certain of its stockholders, dated April 17, 2015 as amended (incorporated by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.1#	2017 Stock Option and Grant Plan and forms of award agreements thereunder (incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
10.2#	2013 Stock Option and Grant Plan and forms of award agreements thereunder (incorporated by reference to Exhibit 10.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.3#	2017 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
10.4#	Amended and Restated Employment Agreement between Richard Murray and the Registrant, dated January 6, 2016 (incorporated by reference to Exhibit 10.4 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
10.5#	Amended and Restated Employment Agreement between Kim Drapkin and the Registrant, dated November 12, 2015 (incorporated by reference to Exhibit 10.5 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
10.6#	Amended and Restated Employment Agreement between Elizabeth Trehu and the Registrant, dated November 3, 2015 (incorporated by reference to Exhibit 10.6 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
10.7	Lease between HCP/LFREP Ventures I, LLC and the Registrant, dated March 28, 2013 (incorporated by reference to Exhibit 10.7 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.8	Sublease between Manus BioSythesis, Inc. and the Registrant, dated May 11, 2015 (incorporated by reference to Exhibit 10.8 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.9†	Amended and Restated Exclusive License Agreement between Sloan Kettering Institute for Cancer Research, Memorial Sloan Kettering Cancer Center and Memorial Hospital for Cancer and the Registrant, dated September 28, 2015 (incorporated by reference to Exhibit 10.9 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.10†	Master Research and Collaboration Agreement between Celgene Corporation, Celgene Rivot LLC and the Registrant, dated July 18, 2016 (incorporated by reference to Exhibit 10.10 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.11	Lease Agreement between ARE-770/784/790 Memorial Drive, LLC and the Registrant, dated November 1, 2016 (incorporated by reference to Exhibit 10.11 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.12#	Form of Director Indemnification Agreement (incorporated by reference to Exhibit 10.12 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.13#	Form of Officer Indemnification Agreement (incorporated by reference to Exhibit 10.13 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
10.14#	Senior Executive Cash Incentive Bonus Plan (incorporated by reference to Exhibit 10.14 of the Registrant's Registration Statement on Form S-1/A (File No. 333-215372) filed January 17, 2017)
10.15*#	Amended and Restated Non-Employee Director Compensation Policy
21.1	List of Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-215372) filed December 30, 2016)
23.1*	Power of Attorney (included on the signature page hereto)
24.1*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certifications of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

† Application has been made to the Securities and Exchange Commission for confidential treatment of certain provisions. Omitted material for which confidential treatment has been requested has been filed separately with the Securities and Exchange Commission.

# Indicates a management contract or any compensatory plan, contract or arrangement.

* Filed herewith.

Jounce Therapeutics, Inc.

Amended and Restated Non-Employee Director Compensation Policy

The purpose of this Non-Employee Director Compensation Policy (the "Policy") of Jounce Therapeutics, Inc., a Delaware corporation (the "Company"), is to provide a total compensation package that enables the Company to attract and retain, on a long-term basis, high-caliber directors who are not employees or officers of the Company. This Policy will become effective (the "Effective Date") upon approval by the Company's Board of Directors (the "Board"). In furtherance of this purpose, all non-employee directors shall be paid compensation for services provided to the Company as set forth below: This policy shall supersede any prior arrangements between the Company and the directors.

Cash Retainers

Annual Retainer for Board Membership: $35,000 for general availability and participation in meetings and conference calls of our Board. No additional compensation for attending individual Board meetings.

Additional Annual Retainer for Non-Executive Chairperson of the Board: $30,000 to acknowledge the additional responsibilities and time commitment of the Chairperson role.

Additional Annual Retainers for Committee Membership:

Audit Committee Chairperson	$15,000
Audit Committee member:	$7,500
Compensation Committee Chairperson:	$10,000
Compensation Committee member:	$5,000
Nominating and Corporate Governance Committee Chairperson:	$8,000
Nominating and Corporate Governance Committee member:	$4,000

No additional compensation for attending individual committee meetings.

All cash retainers will be paid quarterly, in arrears, or upon the earlier of resignation or removal of the non-employee director. Cash retainers owing to non-employee directors shall be annualized, meaning that with respect to non-employee directors who join the Board during the calendar year, and with respect to all non-employee directors for 2017, such amounts shall be pro-rated based on the number of calendar days served by such director following the Effective Date.

Equity Retainers

Initial Option Grant: One-time option grant to each new non-employee director upon his/her election to the Board after the Effective Date to purchase 27,100 shares of common stock, par value $0.001 per share (the Common Stock"). Such initial option grant shall be made upon the director first becoming a director. Such initial option grant shall vest in equal quarterly installments during the 12 quarters following the grant date, subject to the director's continued service on the Board.

On the date of each Annual Meeting of Stockholders: Annual option grant to each non-employee director serving on the Board immediately following the Company's annual meeting of stockholders to purchase

13,550 shares of Common Stock. Such annual option grant shall vest on the earlier of the one-year anniversary of the grant date and the Company's next annual meeting of stockholders, subject to the director's continued service on the Board.

All of the foregoing option grants will become immediately exercisable upon the death, disability of a director or upon a Sale Event (as defined in the Company's 2017 Stock Option and Incentive Plan). In addition, if the option grants described above are in the form of options to purchase the Company's common stock, par value $0.001 per share (the "Common Stock"), to the directors will have until the earlier of one year following cessation of service as a director or the original expiration date of the option to exercise the option (to the extent vested at the date of such cessation), provided that the director has not been removed for cause.

Any stock option granted to a non-employee director pursuant to this Policy will be granted at an exercise price equal to the fair market value of a share of Common Stock on the date of grant.

Expenses

The Company shall reimburse all reasonable out-of-pocket expenses incurred by non-employee directors in attending Board and committee meetings.

ADOPTED AND EFFECTIVE: March 8, 2017

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-215794) pertaining to the 2013 Stock Option and Grant Plan, the 2017 Stock Option and Incentive Plan, and the 2017 Employee Stock Purchase Plan of Jounce Therapeutics, Inc., of our report dated March 10, 2017, with respect to the consolidated financial statements of Jounce Therapeutics, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2016.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 10, 2017

Exhibit 31.1

CERTIFICATIONS

I, Richard Murray, certify that:

1. I have reviewed this Annual Report on Form 10-K of Jounce Therapeutics, Inc.;

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 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.

5. The registrant's other certifying officer 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.

March 10, 2017

By: /s/ RICHARD MURRAY

Richard Murray, Ph.D.
President, Chief Executive Officer and Director
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Kim. C Drapkin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Jounce Therapeutics, Inc.;

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 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.

5. The registrant's other certifying officer 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.

March 10, 2017

By: /s/ KIM C. DRAPKIN

Kim C. Drapkin
Treasurer and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

**CERTIFICATIONS OF CEO AND CFO PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with this Annual Report on Form 10-K of Jounce Therapeutics, Inc. (the "Company") for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company hereby certifies, pursuant to 18 U.S.C. (section) 1350, as adopted pursuant to (section) 906 of the Sarbanes-Oxley Act of 2002, that to the best of her or his 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.

Dated: March 10, 2017

By: /s/ RICHARD MURRAY
Richard Murray, Ph.D.
President, Chief Executive Officer and Director

By: /s/ KIM C. DRAPKIN
Kim C. Drapkin
Treasurer and Chief Financial Officer