Epizyme, Inc.
Form 10-K
March 12, 2015
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2014

or

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

For the transition period from _____ to _____

Commission File Number 001-35945

EPIZYME, INC.

(Exact name of registrant as specified in its charter)

Delaware	**26-1349956**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
400 Technology Square, Cambridge, Massachusetts	**02139**
(Address of principal executive offices)	**(Zip code)**

617-229-5872

(Registrant s telephone number, including area code)

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

Common stock, $0.0001 par value	**NASDAQ Global Market**
(Title of each class)	**(Name of exchange on which registered)**

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 x No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (229.405 of this chapter) 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. x

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 accelerated filer, large accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer x
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	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 x No

The aggregate market value of the registrant s common stock, par value $0.0001 per share, held by non-affiliates of the registrant on June 30, 2014, the last business day of the registrant s most recently completed second fiscal quarter, was approximately $491,990,520 based on the closing price of the registrant s common stock on the NASDAQ Global Market on that date.

The number of outstanding shares of the registrant s common stock, par value $0.0001 per share, as of March 6, 2015 was 34,472,071.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s definitive proxy statement that the registrant intends to file with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the registrant s 2015 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K to the extent stated herein.

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Epizyme, Inc.

Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2014

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Forward-looking Information

This Annual Report on Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. These statements may be identified by such forward-looking terminology as anticipate, believe, estimate, expect, intend, may, plan, predict, project, target, potential, will, would, could, s statements or variations of such terms. Our forward-looking statements are based on a series of expectations, assumptions, estimates and projections about our company, are not guarantees of future results or performance and involve substantial risks and uncertainty. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements. Our business and our forward-looking statements involve substantial known and unknown risks and uncertainties, including the risks and uncertainties inherent in our statements regarding:

- our plans to develop and commercialize novel epigenetic therapies for cancer patients;
- our ongoing and planned clinical trials, including the timing of initiation of the trials and anticipated results of the trials;
- our ability to receive research funding and achieve anticipated milestones under our collaborations;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of our products;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our intellectual property position;
- our ability to identify additional products or product candidates with significant commercial potential that are consistent with our commercial objectives; and
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

All of our forward-looking statements are as of the date of this Annual Report on Form 10-K only. In each case, actual results may differ materially from such forward-looking information. We can give no assurance that such expectations or forward-looking statements will prove to be correct. An occurrence of or any material adverse change in one or more of the risk factors or risks and uncertainties referred to in this Annual Report on Form 10-K or included in our other public disclosures or our other periodic reports or other documents or filings filed with or furnished to the Securities and Exchange Commission, or the SEC, could materially and adversely affect our business, prospects,

financial condition and results of operations. Except as required by law, we do not undertake or plan to update or revise any such forward-looking statements to reflect actual results, changes in plans, assumptions, estimates or projections or other circumstances affecting such forward-looking statements occurring after the date of this Annual Report on Form 10-K, even if such results, changes or circumstances make it clear that any forward-looking information will not be realized. Any public statements or disclosures by us following this Annual Report on Form 10-K which modify or impact any of the forward-looking statements contained in this Annual Report on Form 10-K will be deemed to modify or supersede such statements in this Annual Report on Form 10-K.

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PART I

Item 1. Business

Overview

We are a clinical stage biopharmaceutical company that discovers, develops and plans to commercialize novel epigenetic therapies for cancer patients. We have built a proprietary product platform that we use to create small molecule inhibitors of a 96-member class of enzymes known as histone methyltransferases, or HMTs. HMTs are part of the system of gene regulation, referred to as epigenetics, that controls gene expression. Genetic alterations can result in changes to the activity of HMTs, making them oncogenic. These altered HMTs are referred to as oncogenes. The HMT target class has many potential oncogenes and, we believe, presents the opportunity to create, develop and commercialize multiple epigenetic therapeutics.

Our lead product candidate, EPZ-6438, is an inhibitor that targets the EZH2 HMT. We are currently conducting a Phase 1/2 clinical trial of EPZ-6438 in patients with relapsed or refractory B-cell lymphoma or advanced solid tumors. In 2014, we and our collaboration partner Eisai Co. Ltd., or Eisai, completed enrollment in the dose escalation portion of this Phase 1/2 clinical trial and disclosed the first clinical responses to treatment with EPZ-6438 from this ongoing Phase 1/2 clinical trial. These clinical responses were observed in heavily pretreated and relapsed or refractory patients with non-Hodgkin lymphoma, including of both germinal center and non-germinal center cells-of-origin, and in a patient with an INI1-deficient tumor. In March 2015, we reacquired global rights to develop, manufacture and commercialize EPZ-6438 outside of Japan from Eisai. As we begin the process of transitioning the ongoing development and manufacturing activities of EPZ-6438 to us, we are continuing to dose patients under both the dose escalation and dose expansion portions of the Phase 1/2 study and plan to commence a five-arm Phase 2 portion of the Phase 1/2 trial in the second quarter of 2015. We expect to enroll approximately 150 patients in this trial in both relapsed or refractory diffuse large B-cell lymphoma and follicular lymphoma patients, prospectively stratified by cell of origin and EZH2 mutational status. We also plan to commence a Phase 2 trial in adult patients with INI1-deficient tumors and a Phase 1 trial in pediatric patients with INI1-deficient tumors in the second half of 2015.

Our therapeutic strategy is to treat the underlying causes of specific cancers by blocking the misregulated activity of oncogenic HMTs. HMTs regulate gene expression by adding marks, called methyl groups, to specific locations on the proteins of human chromosomes, or histones, a process known as methylation. Oncogenic HMTs inappropriately mark these locations. As a result, the gene expression necessary for healthy, normally functioning cells is altered, thereby causing disease. Oncogenic HMTs drive multiple types of cancer, including hematological cancers and solid tumors.

In 2011, our scientists defined the 96-member HMT target class, which is referred to as the HMTome. Previously, specific HMTs were known, but a comprehensive identification of the entire target class did not exist. We subsequently analyzed cancer genome databases to enable us to prioritize these HMTs for our drug discovery activities based on the potential oncogenic role of these HMTs, the clinical need of patients with the relevant cancers and the possible clinical development and regulatory pathway for related inhibitors. The clinical development plan for each of our therapeutic product candidates is directed towards targeted cancer patient populations. Because we are tailoring our epigenetic therapeutics for discrete, identifiable patient populations with specific cancers, we believe that many of our products may qualify for orphan drug designation in the United States, the European Union and other regions.

We currently have two HMT inhibitors in clinical development for the treatment of patients with certain cancers and believe we are the first company to conduct clinical trials of HMT inhibitors and demonstrate objective responses in patients in such a trial. In 2012 we initiated a Phase 1 clinical trial of EPZ-5676, an inhibitor targeting the DOT1L HMT and our second most advanced product candidate, in adult patients with MLL-r, an acute leukemia with genetic alterations of the *MLL* gene. In 2013, we completed enrollment in the dose escalation portion of this Phase 1 clinical trial and, in 2014, we completed enrollment in a 90 mg/m^2/day expansion cohort and disclosed the first clinical responses to treatment with EPZ-5676 in heavily pretreated and

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relapsed or refractory patients with MLL-r. We are currently enrolling up to an additional 20 patients in an expansion cohort to investigate the activity of EPZ-5676 at a dose of 54 mg/m^2/day. We are also conducting a Phase 1 clinical trial of EPZ-5676 in pediatric patients with MLL-r, which we initiated in 2014.

In 2015, we plan to execute on the following clinical plans:

- Continue dosing patients who remain on study in the dose escalation portion of our ongoing Phase 1/2 clinical trial of EPZ-6438 in adult patients with advanced solid tumors or with relapsed or refractory B-cell lymphoma;

- Complete enrollment in two ongoing six-patient expansion cohorts in our ongoing Phase 1/2 clinical trial of EPZ-6438 for the treatment of non-Hodgkin lymphoma and solid tumor patients, one at 800 mg and one at 1600 mg;

- Initiate the Phase 2 portion of our Phase 1/2 clinical trial of EPZ-6438 in adult non-Hodgkin B-cell lymphoma patients in which patients will be prospectively stratified based on cell of origin and EZH2 mutational status into one of five arms;

- Initiate a Phase 2 clinical trial of EPZ-6438 in adult patients with INI1-deficient tumors such as synovial sarcoma;

- Initiate a Phase 1 clinical trial of EPZ-6438 in pediatric patients with INI1-deficient tumors such as malignant rhabdoid tumors;

- Complete enrollment in an ongoing 20 patient expansion cohort in our ongoing Phase 1 clinical trial of EPZ-5676 in adult MLL-r patients at 54 mg/m^2/day; and

- Complete enrollment in the ongoing Phase 1 clinical trial of EPZ-5676 in pediatric MLL-r patients.

In addition to our clinical programs, we also have a pipeline of HMT inhibitors in preclinical development that target our other prioritized HMTs in the HMTome. These programs are directed to specific cancers, including both hematological and solid tumors. Three of these HMT programs, including our compounds directed to the PRMT5 HMT, are currently partnered with Glaxo Group Limited (an affiliate of GlaxoSmithKline), or GSK.

If we see evidence of a therapeutic effect in any of our programs, we intend to meet with regulatory authorities to discuss the possibility of an expedited clinical development and regulatory pathway for the applicable program. If eligible, we intend to apply for expedited review and approval programs from the United States Food and Drug Administration, or FDA, including breakthrough therapy and fast track designations.

In March 2015, we entered into an amended and restated collaboration and license agreement with Eisai, under which we reacquired worldwide rights, excluding Japan, to our EZH2 program, including EPZ-6438. Under the original

collaboration and license agreement, we had granted Eisai an exclusive worldwide license to our EZH2 program, including EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States. Under the amended and restated collaboration and license agreement, we will be responsible for global development, manufacturing and commercialization outside of Japan of EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. In connection with the amended and restated agreement, we agreed to pay Eisai an upfront payment of $40.0 million, specified milestone payments based on our development and commercialization of EZH2 products outside of Japan and royalties on net sales of EZH2 products outside of Japan.

In addition to our collaborations with Eisai and GSK, we are also a party to a collaboration agreement with Celgene. These collaborations have provided us with $188.7 million in non-equity funding through December 31,

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2014. Our collaborations with Celgene and GSK also provide us with the potential for significant research, development, regulatory and sales-based milestone payments, as well as royalties on any net product sales. Our key therapeutic collaborations are as follows:

- A collaboration with Celgene under which we have granted Celgene a license outside of the United States to our DOT1L program, which includes EPZ-5676, and the option during a defined period that expires in July 2015 to license other HMT programs outside of the United States. We retain all United States development and commercialization rights for our DOT1L program and any other programs that we license to Celgene under this collaboration.

- A collaboration with GSK under which we have granted GSK a worldwide license to three specified HMT targets, including the PRMT5 HMT. Potential inhibitors of these targets are currently in preclinical development with GSK.

- An amended and restated collaboration with Eisai, under which we have granted Eisai a license to our EZH2 program in Japan, including EPZ-6438. We have retained worldwide development, manufacturing and commercialization rights, excluding Japan.

We have also entered into an agreement with Roche Molecular Systems, Inc., or Roche, for the development of a companion diagnostic for use with EPZ-6438 for non-Hodgkin lymphoma patients with EZH2 point mutations.

Strategy

Our goal is to be a leader in the discovery, development and commercialization of novel epigenetic therapies for cancer patients. We systematically identify the genetic alterations that create oncogenes, select patients in whom the identified genetic alteration is found and then design small molecule therapies to inhibit the oncogenic activity. Our approach is part of a broader trend towards personalized therapeutics based on first identifying the underlying cause of a disease afflicting specific patient populations, applying rational drug design tools to create a therapeutic to inhibit a molecular target in the identified disease pathway and using diagnostic methods to select the right patients for treatment. Because we are tailoring our therapeutics for targeted cancer patient populations, we believe that many of our products may qualify for orphan drug designation in the United States, the European Union and other regions and have been granted orphan drug designation in the United States and the European Union for EPZ-5676.

Key elements of our strategy to achieve our goal are to:

- ***Rapidly Advance the Clinical Development of Our Two Lead Product Candidates.*** We are conducting a Phase 1/2 clinical trial of EPZ-6438 for the treatment of non-Hodgkin lymphoma and advanced solid tumors including INI1-deficient tumors, such as synovial sarcoma and malignant rhabdoid tumors, or MRT, and plan to initiate the Phase 2 portion of the Phase 1/2 trial in patients with non-Hodgkin lymphoma in the second quarter of 2015, as well as a Phase 1 trial in pediatric patients with INI1-deficient tumors in the second half of 2015 and a Phase 2 trial in adult patients with INI1-deficient tumors in the second half of 2015. We are also conducting two Phase 1 clinical trials of EPZ-5676 for the treatment of MLL-r in both adult and pediatric patients. If we see compelling early evidence of a therapeutic effect in any of these trials,

we plan to meet with regulatory authorities to discuss the possibility of an expedited clinical development and regulatory pathway for the applicable program. This approach is similar to the clinical development pathway that was used by the sponsor of the cancer therapeutic Zelboraf® which was included by the FDA in its 2011 report on Innovative Drug Approvals and which received marketing approval from the FDA within five years of initiating Phase 1 clinical trials. If safe and sufficiently active in the target patient populations, we believe that our two lead product candidates may be able to rely on an expedited regulatory approval process because these product candidates have the potential to satisfy the requirements that applied to other targeted cancer therapeutics as well as the FDA s new breakthrough therapy designation, such as treating a life-threatening disease and providing a major advance in treatment. We cannot predict whether or when any of our product candidates will prove effective or

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safe in humans, if they will receive regulatory approval or if we will be able to participate in FDA expedited review and approval programs, including breakthrough and fast track designation.

Pursue Expansion Indications for our Two Lead Product Candidates. We apply our proprietary product platform to identify additional cancers that may be treated with each of our product candidates beyond the initial indication of interest. For instance, INI1-deficient tumors are a potential expansion indication for EPZ-6438 that we identified internally. We are also continuing to look at other genetic alterations affecting EZH2, and its role in oncogenesis in a range of other hematological malignancies and solid tumors.

Establish Commercialization and Marketing Capabilities in the United States. We have retained commercialization rights in the United States for all of our programs other than the three programs in our GSK collaboration. We plan to seek to retain similar rights in connection with any future oncology collaborations. We intend to build a focused specialty sales force and marketing capabilities to commercialize any of our oncology drugs that receive regulatory approval in the United States.

Use Our Product Platform to Build a Pipeline of Proprietary HMT Inhibitors. There are 96 HMT enzymes in the HMTome. We regularly prioritize these HMTs based on their potential as attractive targets for personalized therapeutics. We are using our intellectual property, expertise and knowledge to create small molecule inhibitors of the HMT targets that we have prioritized. To date, we have invented novel, potent small molecule inhibitors for 17 HMTs. We intend to advance certain of these inhibitors into clinical trials.

Leverage Collaborations. We have established therapeutic collaborations with Celgene, GSK and Eisai for our most advanced HMT programs. These collaborations provide us with access to the considerable scientific, development, regulatory and commercial capabilities of our collaborators. Our collaborations with Celgene and GSK potentially provide us with significant funding for both our specific development programs and our product platform. We believe that collaborations like these can contribute to our ability to rapidly advance our product candidates, build our product platform and concurrently progress a wide range of discovery and development programs, and may seek to enter into additional therapeutic collaborations in the future.

Develop Companion Diagnostics for Use with Our Therapeutic Product Candidates. For many of our therapeutic product candidates, we may seek to develop a companion diagnostic for the identification of patients with the cancers that we seek to treat with our therapeutic product candidates. We believe that this approach may enable us to accelerate the clinical development and regulatory timelines for our therapeutic product candidates and, for any of our therapeutic product candidates that receive marketing approval, improve patient care by identifying patients who will benefit from the therapy. We intend to develop diagnostics based on currently available diagnostic technologies to the extent possible in order to minimize development and regulatory risk of our diagnostic programs. We are working with Roche to develop a companion diagnostic, based on currently available technology, for use with EPZ-6438 for non-Hodgkin lymphoma patients with EZH2 point mutations and are relying on existing laboratory tests for use with EPZ-5676 to identify MLL-r patients.

Background

Cancer is a heterogeneous group of diseases characterized by uncontrolled cell division and growth. Cancerous cells that arise in the lymphatic system and bone marrow are referred to as hematological tumors. Cancer cells that arise in other tissues or organs are referred to as solid tumors. Researchers believe that exposure to some chemicals, viruses and various forms of radiation can cause genetic alterations that cause cancer. Genetic predispositions also can increase the risk of cancer in some people.

Cancer is the second leading cause of death in the United States, exceeded only by heart disease. The American Cancer Society estimated that in 2015 there will be approximately 1.7 million new cases of cancer and approximately 590,000 deaths from cancer in the United States.

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The most common methods of treating patients with cancer are surgery, radiation and drug therapy. A cancer patient often receives treatment with a combination of these methods. Surgery and radiation therapy are particularly effective in patients in whom the disease is localized. Physicians generally use systemic drug therapies in situations in which the cancer has spread beyond the primary site or cannot otherwise be treated through surgery. The goal of drug therapy is to damage and kill cancer cells or to interfere with the molecular and cellular processes that control the development, growth and survival of cancer cells. In many cases, drug therapy entails the administration of several different drugs in combination. Over the past several decades, drug therapy has evolved from non-specific drugs that kill both healthy and cancerous cells, to drugs that target specific molecular pathways involved in cancer and more recently to therapeutics that target the specific oncogenic drivers of cancer.

Cytotoxic Chemotherapies. The earliest approach to pharmacological cancer treatment was to develop drugs, referred to as cytotoxic drugs, that kill rapidly proliferating cancer cells through non-specific mechanisms, such as disrupting cell metabolism or causing damage to cellular components required for survival and rapid growth. These drugs include Cytosar-U® and Cytoxan®. While these drugs have been effective in the treatment of some cancers, many unmet medical needs for the treatment of cancer remain. Also, cytotoxic drug therapies act in an indiscriminate manner, killing healthy as well as cancerous cells. Due to their mechanism of action, many cytotoxic drugs have a narrow dose range above which the toxicity causes unacceptable or even fatal levels of damage and below which the drugs are not effective in eradicating cancer cells.

Targeted Therapies. Another approach to pharmacological cancer treatment was to develop drugs, referred to as targeted therapeutics, that target specific biological molecules in the human body that play a role in rapid cell growth and the spread of cancer. Targeted therapeutics include vascular disruptors, also referred to as angiogenesis inhibitors, that prevent the formation of new blood vessels and restrict a tumor s blood supply. Marketed vascular disruptors include Avastin® and Zaltrap®. Other targeted therapies, such as Herceptin® and Tarceva®, affect cellular signaling pathways that are critical for the growth of cancer. These drugs focus on processes that help the cancer cell survive, but not the oncogenes that are the drivers or cause of the cancer itself.

Anti-Oncogenic Therapies. A more recent approach to pharmacological cancer treatment is to develop drugs that affect the drivers that cause uncontrolled growth of cancer cells because of a specific genetic alteration. In some cases, these agents were identified as therapeutics without knowledge of the underlying genetic change causing the disease. To date, the shortcoming of this approach has been that it is not systematic, but instead often follows a conventional trial and error approach to drug discovery. In this approach, clinical development involves the treatment of large populations from which a defined subpopulation that responds to treatment is identified. As a result, this approach can be time-consuming and costly, with success often uncertain.

The Epizyme Approach

We are discovering and developing HMT inhibitors as novel epigenetic therapeutics for cancer patients. We are applying our approach to the HMTome, with a focus on HMTs that we believe have the potential to be oncogenic, due to a variety of genetic alterations.

Background of Epigenetics. Epigenetics is a regulatory system that controls gene expression without altering the makeup of the genes themselves. Genes are composed of DNA. When properly read and translated, genes provide the blueprint for making individual proteins of the body. Epigenetic control of gene expression relies on a well-orchestrated collection of enzymes to perform precisely timed and located chemical reactions. When the function of these epigenetic enzymes is altered, the program of gene expression is changed in ways that often leads to disease.

Like thread wrapped around a spool, the DNA of chromosomes is packed into cell nuclei by wrapping around groups of proteins called histones, together forming packages of combined DNA and histone units known as nucleosomes. How tightly packed the nucleosomes are determines how easily individual genes on the DNA may be expressed. The tightness of the packing is controlled by the placement of small chemical groups acetyl groups, methyl groups and others onto specific sites in the DNA and the histone proteins by particular

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epigenetic enzymes. Where, when and how many of these small chemical groups are deposited determines which genes in a cell are turned on or off at any particular time.

Cancer and HMTs. The HMT class of enzymes is particularly attractive for drug therapy for several reasons. First, there are a large number of HMTs in humans 96 in total because these enzymes are needed to conduct all of the methylation reactions at distinct locations within the histones. As a result, this class provides a large number of potential drug targets. Second, because HMTs regulate gene expression in a precise fashion, they provide the potential for creation of an inhibitor that can have a desired biological effect. Third, genome discovery efforts have demonstrated that the activity of many of the HMTs is changed due to genetic alterations in cancers in such a way as to make the individual cancers strongly dependent on the enzyme activity of specific HMTs, thereby potentially improving the likelihood that an inhibitor will have a therapeutic effect.

While HMTs are a particularly attractive target class of enzymes for drug therapy, in our experience it requires significant effort and scientific knowledge to successfully pursue drug development programs directed at these targets. Key steps in these programs include:

- screening cancer genome sequences specifically to identify alterations directly in HMTs or in related pathways;
- defining an oncogenic hypothesis for the affected HMT;
- developing assays to test the oncogenic hypothesis; and
- creating and optimizing drug-like molecules to inhibit the selected HMT.

The Epizyme Product Platform

When Epizyme was founded, we recognized that the HMT target class might contain many potential oncogenes and, therefore, presented the opportunity to create, develop and commercialize multiple epigenetic therapeutics. To realize this potential opportunity, we created and continue to expand and enhance our proprietary product platform. Our product platform includes intellectual property, know-how, expertise, proprietary biological information, biochemical assays, a library of novel HMT inhibitors and crystal structures of HMT enzymes bound with our small molecules. We have used, and continue to apply, our product platform to:

- define the HMTome;
- determine the roles of HMTs as oncogenes;
- identify potent and selective small molecule inhibitors of prioritized HMTs;

optimize those small molecules as potential drug candidates; and

develop companion diagnostics with our collaborators, where needed, for use with our therapeutic product candidates.

We invented EPZ-6438 and EPZ-5676, our two lead product candidates, and our pipeline of preclinical drug candidates using our proprietary product platform.

Define the HMTome. We defined the HMTome and published our findings in *Chemical Biology & Drug Design* in August 2011. The HMTome represents an unusually large target class, and therefore presents a broad opportunity to identify therapeutic applications.

Determine HMT Oncogenicity. After comprehensively defining the HMTome, we applied a rigorous analysis to prioritize HMTs for our drug discovery programs. Specifically:

We generated hypotheses as to the oncogenic nature of particular HMTs based on our proprietary experimental data as well as public databases, such as The Cancer Genome Atlas, a project to catalogue genetic mutations responsible for cancer supervised by the National Cancer Institute and the National

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Human Genome Research Institute. We published our findings regarding our hypotheses as to the oncogenic nature of particular HMTs in *Oncogene* in February 2013.

We designed and created proprietary *in vitro* biochemical and cellular assays to confirm the enzymatic function and oncogenic mechanism of various HMTs. For example, using these assays, we discovered the oncogenic role in a genetically defined subtype of non-Hodgkin lymphoma played by a point mutation in EZH2. A point mutation is a type of genetic alteration in which a single nucleotide base in a gene is substituted, added or deleted. This discovery formed the basis of our program in which we identified EPZ-6438. Our research on the EZH2 point mutation was published in the *Proceedings of the National Academy of Sciences* in December 2010.

Similarly, in *in vitro* preclinical studies conducted by us, EPZ-6438 induced apoptotic cell death and, in preclinical animal models conducted by us, EPZ-6438 caused dose-dependent regression of malignant rhabdoid tumors and prevention of tumor regrowth after dosing cessation. Our research on tumor regressions in genetically altered malignant rhabdoid tumors by inhibition of EZH2 was published in the *Proceedings of the National Academy of Sciences* in April 2013.

We identified the patient populations with the oncogenic HMTs to determine that we were pursuing areas of significant unmet medical need.

Identify Potent and Selective Small Molecule Inhibitors. We then screened for potent and selective inhibitors that have the potential to be novel, safe and effective pharmaceuticals. Specifically:

We have designed and built proprietary biochemical assays that we use to screen for potent and selective inhibitors of the prioritized HMTs. We refer to these assays together as our HMTome cross screen. Our HMTome cross screen includes our high priority HMTs. We have also included a number of other HMTs to determine whether the compounds that we screen inhibit the HMT of interest selectively.

We have created more than 650 proprietary crystal structures of enzymes bound with HMT inhibitors. We use these structures to guide our efforts to select HMT inhibitors that we believe have the potential to be developed into safe and effective pharmaceuticals and to optimize these inhibitors through medicinal chemistry efforts.

Optimize Small Molecule Compounds. We have created a proprietary library of more than 29,000 compounds in 27 distinct chemical series. Within these 27 distinct series, there are examples of multiple modes of inhibition of HMTs, thereby increasing the likelihood of their binding to a target HMT in a manner that may have a pharmaceutical effect. We have further optimized many of these small molecule compounds to have drug-like properties, including the ability to be absorbed and maintained at blood levels necessary to treat cancers. Many of these compounds are highly selective for specific HMTs.

Develop Companion Diagnostics. One element of our approach to cancer treatment is to develop a companion diagnostic for use with each therapeutic product candidate we develop, unless we believe existing, available technology may be sufficient to identify the patients we seek to treat. We are working with a collaborator to develop one such companion diagnostic, applying our knowledge about the target HMT and using currently available

diagnostic technologies to the extent possible in order to minimize development and regulatory risk of our diagnostic programs. We believe that this approach will help us to access the best technology for each program and control diagnostic development costs. We intend to use the companion diagnostic to identify and stratify patients for our clinical trials who have the target cancers that we are seeking to treat with our therapeutic product candidate. We believe that including these patients may increase the likelihood that we will see early evidence of a therapeutic effect in our trials.

We believe that our product platform provides us with an important competitive advantage in identifying oncogenic HMTs and creating novel epigenetic therapeutics to treat the cancers caused by these HMTs.

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Product Pipeline

The following table summarizes key information about our two most advanced product candidates:

Product Candidate	Clinical Populations	Stage of Development	Commercial Rights	Diagnostic Collaborator
EPZ-6438 (EZH2 inhibitor)	Non-Hodgkin lymphomas, including germinal center diffuse large B-cell lymphoma and follicular lymphoma as well as non-germinal center DLBCL, including primary mediastinal B-cell lymphoma (EZH2) Other solid tumors such as synovial sarcoma and MRT (INI1-deficient)	Phase 1/2 clinical trial ongoing Phase 1 dose escalation complete; Phase 1 dose expansion enrolling at the highest two tested dose levels Phase 2 trial for expanded population of non-Hodgkin lymphoma patients expected to initiate in the second quarter of 2015	Epizyme: Worldwide rights, ex-Japan Eisai: Japan	Roche (Non-Hodgkin lymphoma with EZH2 point mutations)
		Phase 1 trial for pediatric patients with INI1-deficient tumors, including MRT, expected to initiate in the second half of 2015 Phase 2 trial for adult patients with INI1-deficient tumors, including synovial sarcoma, expected to initiate in the second half of 2015 Clinical pharmacology studies evaluating food effects and drug/drug		None-existing standard of care immunohistochemical testing used at time of diagnosis to be utilized for studies in INI1-deficient tumors

		interactions expected to initiate in 2015		
EPZ-5676 (DOT1L inhibitor)	Acute leukemias with alterations in the *MLL* gene	Phase 1 MLL-r adult patient trial ongoing	Epizyme: United States Celgene: Rest of world	None-existing standard of care molecular testing used at time of diagnosis to be utilized for studies in MLL-r leukemia
	MLL-r subtype of acute myeloid leukemia, or AML, and acute lymphoblastic leukemia, or ALL, in adult patients (Chromosomal translocation involving the *MLL* gene)	Dose escalation fully enrolled in MLL-r adult patient trial		
	MLL-r in pediatric patients (Chromosomal translocation involving the *MLL* gene)	MLL-r only adult expansion enrolling		
		Phase 1 MLL-r pediatric patient trial enrolling		

In addition to the therapeutic programs listed above, we are working with GSK on three specified HMT inhibitors, including inhibitors directed to the PRMT5 HMT, that are in preclinical development and for which GSK holds commercial rights. We also have active drug discovery programs for other HMTs that we consider to be priority targets.

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EPZ-6438 EZH2 Inhibitor

Overview. We are developing EPZ-6438 as an orally available small molecule inhibitor of EZH2 for the treatment of non-Hodgkin lymphoma patients and for the treatment of patients with INI1-deficient solid tumors, such as synovial sarcoma, a soft tissue sarcoma, and malignant rhabdoid tumor, a primarily pediatric cancer with high unmet medical need. In June 2013, Eisai and we initiated a Phase 1/2 clinical trial of EPZ-6438. This trial is currently enrolling adult patients with advanced solid tumors or with relapsed or refractory B-cell lymphoma in an expansion cohort of the Phase 1 dose escalation portion of the trial at clinical sites in France. In November 2014, we and Eisai released data from the Phase 1 dose escalation portion of the trial. In this portion of the trial, EPZ-6438 exhibited favorable safety and tolerability as well as monotherapy activity in non-Hodgkin lymphoma, including germinal center and non-germinal center B-cell lymphomas with wild-type EZH2, and INI1-deficient tumors. On the basis of these trial results, a recommended Phase 2 dose has been selected. We expect to initiate the Phase 2 portion of the trial in non-Hodgkin lymphoma patients in which patients will be prospectively stratified based on cell of origin and EZH2 mutational status in the second quarter of 2015 as well as a Phase 2 trial for the treatment of adults with INI1-deficient tumors, including synovial sarcoma, in the second half of 2015. These two Phase 2 trials are intended to provide an initial assessment of efficacy, or proof-of-concept, in two cancer types that we currently seek to treat with EPZ-6438. Additionally, in the second half of 2015, we plan to initiate a Phase 1 dose escalation study of EPZ-6438 in pediatric patients with INI1-deficient tumors, including MRT.

In March 2015, we entered into an amended and restated collaboration and license agreement with Eisai, under which we reacquired worldwide rights, excluding Japan, to our EZH2 program, including EPZ-6438. Under the original collaboration and license agreement, we had granted Eisai an exclusive worldwide license to our EZH2 program, including EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States. Under the amended and restated collaboration and license agreement, we will be responsible for global development, manufacturing and commercialization, outside of Japan, of EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. In connection with the amended and restated agreement, we agreed to pay Eisai an upfront payment of $40.0 million, specified milestone payments based on our development and commercialization of EZH2 products outside of Japan and royalties on net sales of EZH2 products outside of Japan.

Background on EZH2 Cancers. EZH2 is an HMT that can become an oncogenic driver for non-Hodgkin lymphoma and a variety of other solid tumors, such as synovial sarcoma and MRT. As a result, EZH2 has become an important target of oncological drug research.

Non-Hodgkin Lymphoma. In an article in *The New England Journal of Medicine* in December 1995, the authors estimated that patients with relapsed or refractory non-Hodgkin lymphoma who are not eligible for a stem cell transplant have a five-year overall survival rate ranging from approximately 10 to 15%. Two types of non-Hodgkin lymphoma, diffuse large B-cell lymphoma of germinal-center origin, or DLBCL, and follicular lymphoma, or FL, are associated with oncogenic EZH2 mutations. In our preclinical studies, we observed that non-Hodgkin lymphoma cells bearing EZH2 mutations were particularly responsive to treatment with an EZH2 inhibitor, such as EPZ-6438. However, EZH2 mutations are not the only genetic alterations associated with non-Hodgkin lymphomas that may confer responsiveness to EZH2 inhibition. EZH2 plays a critical role at various stages in normal B-cell maturation, and a particularly critical role during the stage of B-cell development known as the germinal center reaction. The importance of EZH2 in post-germinal center B-cell maturation and lymphomas is less well understood at present but is an active area of scientific research. A number of genetic alterations are known among patients with germinal center derived non-Hodgkin lymphoma, such as DLBCL and FL, that impact EZH2 activity and methylation in ways that may confer sensitivity to EZH2 inhibition. While DLBCL and FL remain the primary target patient populations for

EPZ-6438, patients with other forms of non-Hodgkin lymphoma may also benefit from this drug. Other genetic alterations that impact EZH2 activity and H3K27 methylation have been shown to exist in other forms of non-Hodgkin lymphoma and could potentially

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confer sensitivity to an EZH2 inhibitor. These alterations include amplification of EZH2 and other PRC2 subunit genes, loss-of-function mutations in histone acetyltransferases, *MLL* genes, SWI/SNF complex and others.

In a report that we commissioned, Clarion Healthcare estimated that the annual incidence rate in the major pharmaceutical markets of DLBCL is approximately 119,000 patients and the annual incidence rate of FL in the major markets is approximately 36,000 patients. The estimated 119,000 DLBCL patients include 89,000 patients with activated B-cell and non-germinal-center derived non-Hodgkin lymphoma and 30,000 patients with germinal-center DLBCL. Clarion further estimated that approximately 6,000 of the germinal-center DLBCL patients carry an EZH2 oncogenic point mutation and that approximately 6,000 of the FL patients carry an EZH2 oncogenic point mutation. Many patients with DLBCL and FL survive beyond the year in which they are diagnosed. Accordingly, we believe that the prevalence of DLBCL and FL in the major pharmaceutical markets is significantly higher than the annual incidence of 155,000 patients.

The most common treatments for both DLBCL and FL are multi-agent chemotherapy, usually combined with Rituxan®. Some patients with DLBCL are treated with an allogeneic stem cell transplant. A number of other widely used anti-cancer agents have broad labels that include non-Hodgkin lymphoma. While these therapies have enjoyed meaningful success in treating non-Hodgkin lymphoma, there remains an unmet medical need in patients with relapsed or refractory disease. There are no therapies approved specifically for the treatment of cancers associated with an EZH2 point mutation.

INI1-Deficient Tumors. INI1 is a protein subunit of the multi-protein complex known as SWI/SNF. SWI/SNF catalyzes chromatin remodeling in a manner that is antagonistic to the action of H3K27 methylation, which is catalyzed by EZH2. Due to a variety of genetic alterations, INI1 can lose its regulatory function. As a result, wild-type EZH2 activity is misregulated, causing EZH2 to play an oncogenic role in a set of genetically defined cancers that include synovial sarcomas and malignant rhabdoid tumors. In a report that we commissioned, Clarion Healthcare estimated that the total annual incidence of synovial sarcoma patients in the major pharmaceutical markets is approximately 1,700 patients and that other INI1-deficient tumors have an estimated annual incidence in the major pharmaceutical markets of 700 patients.

Synovial Sarcoma. Synovial sarcoma is one of the most common soft tissue tumors in adolescents and young patients, with approximately one in three cases occurring in the first two decades of life. Mean age of patients at diagnosis is approximately 30 years. Current treatment consists of wide surgical resection, radiotherapy, and chemotherapy. In an article in the journal *Annals of Oncology* in January 2011, the authors estimated that long-term prognosis is poor due to late local recurrence, seen in 47% of patients, and distant metastases, observed in 50-70% of cases.

Malignant Rhabdoid Tumors. Malignant rhabdoid tumors are a rare and deadly form of cancer, primarily in children, that is caused by a specific genetic alteration that is associated with the absence of the tumor suppression gene INI1. MRT typically presents either in the kidney or brain and in children less than two years of age. Current treatment consists of intensive chemotherapy and radiation therapy. In an article in the journal *Pediatric Blood & Cancer* in December 2011, the authors estimated that patients with MRT have event-free survival rates of less than 20% in both kidney and brain presentations. Moreover, there is considerable treatment-related morbidity in the few patients who achieve a durable remission, particularly in those who receive cranial irradiation as part of therapy.

Phase 1/2 Clinical Trial. We are conducting our ongoing Phase 1/2 clinical trial of EPZ-6438 in two parts. The Phase 1 portion of this first-in-human clinical trial is an open label dose escalation trial. The Phase 2 portion will be conducted in two stages. All patients in the Phase 2 trial will be dosed at the recommended Phase 2 dose as determined in the Phase 1 clinical trial. If the pre-specified number of responses are observed in the first stage of the Phase 2 part of this clinical trial, enrollment will continue into the second stage. Both the Phase 1 and Phase 2 clinical trials provide for the assessment of the safety and tolerability and pharmacokinetics of EPZ-6438 and include various exploratory pharmacodynamics and translational research objectives.

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The primary objective of the Phase 1 clinical trial is to evaluate the safety and tolerability of EPZ-6438 and to determine the recommended dose for Phase 2 trials.

Secondary objectives of the Phase 1 clinical trial are to:

- explore the pharmacokinetic activity, including evaluating the fraction of orally administered drug that reaches systemic circulation, of EPZ-6438;
- explore the pharmacodynamic activity of EPZ-6438; and
- evaluate early evidence of anti-tumor activity in patients.

In the Phase 1 trial, EPZ-6438 is being administered orally as a monotherapy, twice daily in 28-day cycles in patients with advanced solid tumors or with relapsed or refractory B-cell lymphoma. A total of 24 patients were enrolled in one of five dose cohorts at dose levels of 100, 200, 400, 800, or 1600 mg. This dose escalation portion of the trial allowed for, but did not require, the enrollment of patients with non-Hodgkin lymphoma and INI1-deficient tumors. Of the 24 enrolled patients, 12 patients had a diagnosis of non-Hodgkin lymphoma and 12 patients had advanced solid tumors, two of which were INI1-deficient. This patient population was heavily pre-treated, with 14 patients having received between two and four prior therapies and nine having received more than four prior therapies. As of an October 2014 data cut-off, 10 of the non-Hodgkin lymphoma patients and two of the INI1-deficient patients were evaluable for efficacy. Four of the 10 non-Hodgkin lymphoma patients evaluable for efficacy achieved a partial response or better, including one complete response, which remained ongoing at 14 months as of January 23, 2015, and one of the two evaluable INI1-deficient patients achieved a complete response, which remained ongoing at nearly nine months as of January 23, 2015. Four of the 10 non-Hodgkin lymphoma patients and one INI1-deficient patient from the dose escalation remain on study with treatment durations ranging from seven to 14 months as of January 23, 2015. Confirmatory sequencing in a central laboratory showed that all 10 non-Hodgkin lymphoma patients evaluable for efficacy had wild-type EZH2.

In the trial results to date, EPZ-6438 has exhibited a favorable safety and tolerability profile. Specifically, one dose-limiting toxicity at 1600 mg has been reported. This safety and tolerability profile suggest that combination with a range of other non-Hodgkin lymphoma therapies may be possible. We are currently evaluating a range of potential combinations preclinically.

Based on the Phase 1 dose escalation results, a recommended Phase 2 dose of 800 mg was selected. We are currently enrolling two ongoing six-patient expansion cohorts, one at 800 mg, which is fully enrolled, and one at 1600 mg, in which we have enrolled five of six patients to-date. We plan to provide an update on data from the dose escalation portion of the study at a medical conference in mid-2015 and data from these expansion cohorts by early 2016.

Subject to our ongoing discussions with regulatory authorities, we expect to initiate the Phase 2 portion of this trial in non-Hodgkin B-cell lymphoma patients in the European Union in the second quarter of 2015. Our plan for this Phase 2 portion of the clinical trial provides for prospective stratification of patients based on cell of origin and EZH2 mutational status and will enroll five distinct patient populations in five clinical trial arms, allowing us to discretely assess EPZ-6438 in the following patient groups: germinal center DLBCL with wild-type EZH2, non-germinal center B-cell DLBCL, germinal center DLBCL with mutated EZH2, FL with wild-type EZH2 and FL with mutated EZH2. We expect to enroll approximately 30 patients in each trial arm, for a total of approximately 150 patients, assuming

each arm of the study achieves its primary response rate goal in its first stage. We expect to disclose data from the germinal center DLBCL with wild-type EZH2 and non-germinal center B-cell DLBCL trial arms in mid-2016 and from the FL with wild-type EZH2 trial arm in the first half of 2017. We will not be able to reasonably estimate the timing of the mutated EZH2 arms until we have completed an initial evaluation of enrollment rates; however, we expect that enrollment in these trial arms will be slower than the wild-type EZH2 arms based on the estimated incidence of mutated EZH2.

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The primary objective of the Phase 2 clinical trial will be to assess the objective response rate of EPZ-6438 in patients who have confirmed relapsed or refractory DLBCL or FL. The secondary objectives of the Phase 2 clinical trial will be to assess duration of response and progression-free survival of EPZ-6438 as a monotherapy.

It is important to note that the objective responses and treatment effects observed in the dose escalation portion of the study were experienced by only some of the lymphoma and INI1-deficient tumor patients enrolled in the trial, were observed in an open-label setting and might not be experienced by other patients treated with EPZ-6438. Additionally, the disease did progress in other lymphoma and INI1-deficient tumor patients enrolled in the dose escalation study. This Phase 1/2 trial is not designed to show results with statistical significance. Statistical significance means that an effect is unlikely to have occurred by chance. Clinical trial results are considered statistically significant when the probability of the results occurring by chance, rather than from the efficacy of the drug candidate, is sufficiently low. Since the trial is not powered to show results with statistical significance, the results from the trial may be attributable to chance and not the clinical efficacy of EPZ-6438. We plan to design any later stage trials that are intended to support marketing approval applications to show statistical significance. We would do so by enrolling a larger number of patients than enrolled in earlier trials.

We plan to launch the Phase 2 portion of our EPZ-6438 trial in non-Hodgkin B-cell lymphoma in the second quarter of 2015 in the European Union.

In the course of our ongoing preclinical safety studies for EPZ-6438, we observed the development of lymphoma in a single study in Sprague Dawley rats. We did not observe this finding in our parallel preclinical safety studies of EPZ-6438, which were conducted in primates. Additionally, we have not observed any similar findings in our ongoing Phase 1/2 clinical study of EPZ-6438. We have informed the relevant European regulatory authorities and the clinical investigators of this finding. We continue to enroll patients in the expansion cohorts of our Phase 1 study in France, with updated data from the dose escalation patients expected in mid-2015 and data on the expansion cohort patients expected in the second half of 2015.

Expansion of trials of EPZ-6438 to the United States will require that we submit an investigational new drug application, or IND, and that we address this matter to the satisfaction of the FDA within the context of patient risk-benefit and in view of the safety and efficacy data from our ongoing Phase 1/2 clinical study. We are in discussions with the FDA, and we are conducting additional preclinical studies to understand this observation more fully, prior to submitting our IND. If we are unable to adequately address this matter, we may be unable to expand our planned clinical trials of EPZ-6438 into the United States, our trials may be limited to certain patient populations or our ability to conduct trials in the United States may be delayed.

In the second half of 2015, we plan to initiate a Phase 1 trial of EPZ-6438 for the treatment of INI1-deficient tumors, such as MRT, in pediatric patients and a Phase 2 trial of EPZ-6438 for the treatment of INI1-deficient tumors, such as synovial sarcoma, in adult patients. These trials will only enroll patients with the targeted disease. The Phase 1 trial is currently designed to evaluate the safety, tolerability and preliminary efficacy of EPZ-6438 and to determine its maximum tolerated dose in children. The Phase 2 trial is currently designed to provide an initial assessment of efficacy, or proof-of-concept, in this adult patient population. We also plan to initiate, in 2015, standard clinical pharmacology studies designed to evaluate the food effects and any potential drug-to-drug interactions of EPZ-6438.

Preclinical Studies Non-Hodgkin Lymphoma. Based on a comprehensive program of preclinical testing of EPZ-6438, including several *in vitro* analyses and *in vivo* xenograft studies, we concluded that EPZ-6438 had exhibited appropriate pharmaceutical potential to advance it into clinical development for the treatment of non-Hodgkin lymphoma. Key findings from this preclinical program included the following:

In non-Hodgkin lymphoma cell lines that bear a point mutation in EZH2, EPZ-6438 inhibited the methylation associated with EZH2 activity in a concentration dependent manner. In these in vitro experiments, EPZ-6438 acted in a highly selective manner, inhibiting only the targeted EZH2-associated methylation and no other histone methyl marks.

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We treated mouse xenograft models in which human EZH2 mutant-bearing non-Hodgkin lymphoma cells were implanted subcutaneously and allowed to establish tumors. Each dose group consisted of nine animals. We administered EPZ-6438 twice daily to these mice at four dose levels for 28 days by oral administration. Dose 1 was 80.5 mg/kg per dose; dose 2 was 161 mg/kg per dose; dose 3 was 322 mg/kg per dose; and dose 4 was the vehicle alone, with no EPZ-6438. In comparison with animals receiving only the vehicle, the 80.5 mg/kg treated group displayed significant tumor growth inhibition. In the 161 and 322 mg/kg treatment groups, tumors in all animals were reduced to undetectable volumes by the end of the 28 day treatment period, at which point the study ended. These data are available in a 2014 Molecular Cancer Therapeutics publication entitled *Selective Inhibition of EZH2 by EPZ-6438 Leads to Potent Antitumor Activity in EZH2 Mutant Non-Hodgkin Lymphoma*.

In a separate test, we studied the durability of drug efficacy. Mice were again treated twice daily either with the vehicle or with EPZ-6438 at the 322 mg/kg dose for 28 days. We measured tumor volume during this 28 day treatment period and for an additional 63 days beyond the treatment period, at which point the study ended. As in the first study, tumors in all animals in the 322 mg/kg treatment group were reduced to undetectable volumes by the end of the 28 day treatment period. No regrowth of tumor was observed in any of the treated animals through the end of the study, which was 91 days.

Preclinical Studies INI1-Deficient Tumors. INI1 is a critical component of a protein complex known as SWI/SNF, that regulates EZH2 function. A variety of genetic alterations cause this protein complex to lose its regulatory function. In these cases, EZH2 becomes misregulated and a driving oncogene in specific, identifiable cancers. Collectively, these cancers are called INI1-deficient tumors.

Synovial sarcoma is an INI1-deficient tumor of particular interest for treatment with an EZH2 inhibitor. All synovial sarcomas have a specific genetic alteration in the SWI/SNF complex referred to as a chromosomal translocation. This chromosomal translocation results in the loss of SWI/SNF s regulatory function, conferring sensitivity to EZH2 inhibitors. In a synovial sarcoma cell line that was confirmed to contain the specific chromosomal translocation product, treatment with the EZH2 inhibitor EPZ-6438 led to dose-dependent cell killing, similar to what we have observed in other cancer cell lines in which EZH2 plays an oncogenic role, such as MRT, as is described below. In contrast, a control sarcoma cell line that lacked the specific chromosomal translocation and showed normal levels of INI1 was not sensitive to EPZ-6438 inhibition over the same range of doses. We plan to initiate a Phase 2 study in patients with INI1-deficient tumors, including synovial sarcoma, in the second half of 2015.

Similarly, EZH2 is oncogenic in 98% of MRT patients due to a specific genetic alteration referred to as an INI1 deletion that leads to misregulated EZH2 activity. In *in vitro* studies of MRT cell lines with an INI1 deletion, EPZ-6438 inhibited the methylation associated with EZH2 activity in a concentration dependent manner. EPZ-6438 acted in a highly selective manner, inhibiting only the targeted EZH2-associated methylation and no other histone methyl marks and inhibited proliferation and killed cells containing the INI1 deletion but did not affect cells that did not contain the INI1 deletion. In the *in vivo* preclinical animal model studies, we treated mouse xenograft models in which human INI1-deleted MRT cells were implanted subcutaneously and allowed to establish tumors. We administered EPZ-6438 twice daily to 16 mice at each of four dose levels for 21 days by oral administration. Dose 1 was 125 mg/kg per dose, dose 2 was 250 mg/kg per dose, dose 3 was 500 mg/kg per dose, and dose 4 was the vehicle alone, with no EPZ-6438. Half of the mice in each group, or eight mice per group, were euthanized after 21 days of treatment so that tissue samples could be collected and analyzed for methyl mark changes. The other eight mice in each group continued to receive treatment for an additional seven days, for a total of 28 days of treatment. In the 125 mg/kg treatment group, methyl mark levels were reduced by over 80% compared to the vehicle control group at day 21 with significant tumor growth inhibition in comparison to the animals receiving only the vehicle. In the 250 and 500 mg/kg treatment groups, methyl mark levels were reduced by 90% or more compared to the vehicle control group

at day 21, and tumors in all animals were reduced to volumes below the limits of detection by the end of the 28-day treatment period. Mice in this study were kept alive until their tumors reached a volume of 2,000 cubic millimeters or until the end of the study,

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which was 32 days after the end of the dosing period. No regrowth of tumors was observed in any of the mice in the 250 and 500 mg/kg per dose treatment groups up to the end of the study. These data are available in a 2013 Proceedings of the National Academy of Sciences publication entitled *Durable Tumor Regression in Genetically Altered Malignant Rhabdoid Tumors by Inhibition of EZH2*.

Companion Diagnostic. We are working with Roche to develop an *in vitro* based diagnostic for use as a companion diagnostic with EPZ-6438 for non-Hodgkin lymphoma patients with EZH2 point mutations and plan to use this diagnostic in the prospective screening of patients for stratification in the Phase 2 portion of our EPZ-6438 clinical trial. The agreement with Roche calls for the development of a diagnostic to test for the presence of an oncogenic point mutation in EZH2. Under the agreement, Roche will have the right to commercialize the companion diagnostic with EPZ-6438. We anticipate that we and Roche will coordinate our marketing and sales activities for EPZ-6438 and the companion diagnostic. We have not yet determined whether companion diagnostics will be necessary for the INI1-deficient tumors as the EZH2 sensitivity may be inherent in the clinical diagnosis for most of the patient population.

EPZ-5676 DOT1L Inhibitor

Overview. We are developing EPZ-5676 as an intravenously administered small molecule inhibitor of DOT1L for the treatment of acute leukemias with alterations in the *MLL* gene, specifically rearrangements of *MLL* as a consequence of chromosomal translocation, referred to as MLL-r, which includes partial tandem duplications of the *MLL* gene, referred to as MLL-PTD. We invented EPZ-5676 using our proprietary product platform and initiated a Phase 1 clinical trial of this product candidate in September 2012. The dose escalation portion of this trial included patients with advanced hematologic malignancies, including, but not restricted to patients with alterations involving the *MLL* gene. The dose escalation was fully enrolled as of December 31, 2013, and, from December 2013 to November 2014, we enrolled patients in a 90 mg/m^2/day expansion cohort in the Phase 1 trial. The expansion cohort only included patients with MLL-r or MLL-PTD. Based on the results seen through the 90 mg/m^2/day expansion cohort, in January 2015, we initiated enrollment of adult MLL-r patients in a 54 mg/m^2/day expansion cohort to gain further clinical experience at this dose level. We chose this dose level based on complete responses observed in MLL-r patients at this dose level in the dose escalation portion of the Phase 1 trial.

In May 2014, we initiated a Phase 1 trial of EPZ-5676 in pediatric patients with MLL-r. This Phase 1 study is designed to evaluate the safety, pharmacokinetics and pharmacodynamics of escalating doses of EPZ-5676 in patients between the ages of three months and 18 years. This trial is also designed to provide a preliminary assessment of efficacy.

We retain all U.S. rights to EPZ-5676. We have granted Celgene an exclusive license to EPZ-5676 outside of the United States.

In August 2013, we were granted orphan drug designation for EPZ-5676 for the treatment of acute myeloid leukemia, or AML, and acute lymphoblastic leukemia, or ALL, by the FDA, and in January 2014, the European Commission granted orphan drug designation for EPZ-5676 for the treatment of AML and ALL.

Background on DOT1L Cancers. DOT1L is an HMT that can become oncogenic and cause certain subtypes of acute leukemia, such as MLL-r.

MLL-r is an aggressive, genetically defined subtype of two of the most common forms of acute leukemia, ALL and AML. In an article in the journal *Blood* in December 2002, the authors estimated that the five-year overall survival rate for adult patients with the MLL-r subtype of AML ranges from approximately 5 to 24%. In an article from 2004

in the *New England Journal of Medicine*, the authors estimated that the five-year event-free survival rate in pediatric patients with the most common MLL-r subtype of ALL is approximately 27%. In a report that we commissioned, Clarion Healthcare, LLC, or Clarion Healthcare, estimated that the total annual

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incidence of MLL-r in all patients in the major pharmaceutical markets is approximately 4,900 patients. Patients with MLL-r are routinely diagnosed using existing technologies that are commonly used in clinical settings. As a result, there is high awareness of MLL-r among oncologists. The disease predominantly occurs in two different age ranges, an adult population and an infant/pediatric population. While they share a common genetic alteration, the adult disease is frequently a secondary leukemia resulting from prior chemotherapy for a different, unrelated cancer and the childhood disease is of unknown origin. MLL-r is caused by a chromosomal translocation involving the *MLL* gene. The translocation results in DOT1L being recruited to a specific place in the chromosome where it would not normally be present. As a result, DOT1L causes inappropriate histone methylation at this location, which results in the increased expression of genes involved in causing leukemia.

There are no approved therapies specifically indicated for MLL-r. Physicians treat this hematological cancer with therapies approved for other acute leukemias. Patients with AML and ALL typically are treated with intensive multi-agent chemotherapy and high risk patients with ALL and AML who enter remission and have a matched donor often receive an allogeneic stem cell transplant. However, some patients, especially those who are older, are too fragile for any of these treatments and, as a result, remain untreated.

Phase 1 Clinical Trial in Adult Patients. Our Phase 1 clinical trial of EPZ-5676 is a first-in-human open label, multicenter trial that is being conducted in two parts. The first part involves dose escalation in patients with advanced hematologic malignancies, including, but not restricted to, MLL-r patients. The second part involves expansion cohorts that only enroll MLL-r patients. We are currently enrolling a second expansion cohort of up to 20 MLL-r patients at a dose of 54 mg/m^2/day using an uninterrupted administration schedule and expect to disclose top-line data from this expansion cohort in the second half of 2015. We are currently conducting this trial at seven sites in the United States and one site in the European Union.

The primary objectives of the trial are to evaluate the safety and tolerability of EPZ-5676 and to determine its maximum tolerated dose. Secondary objectives of this trial are to:

- determine the pharmacokinetics of EPZ-5676;
- assess the biochemical and physiological effects of EPZ-5676 on the human body, which is referred to as pharmacodynamics, including methylation in peripheral blood mononuclear cells and leukemia cells; and
- evaluate preliminary anti-tumor activity in patients with MLL-r.

Dose Escalation. We began enrolling patients in the dose escalation portion of the Phase 1 trial in September 2012 and completed enrollment in December 2013. A total of 25 patients were enrolled in one of six dose cohorts at dose levels of 12, 24, 36, 54, 80, or 90 mg/m^2/day, with patients in the 12, 24, 36, and 54 mg/m^2/day dose cohorts receiving EPZ-5676 on a 21-day on drug, seven-day off drug schedule via continuous intravenous administration and patients in the 80 and 90 mg/m^2/day dose cohorts receiving continued intravenous administration without a drug holiday. The dose escalation allowed for, but did not require, the enrollment of patients with the targeted MLL-r genetic alterations. The majority of patients had a diagnosis of AML. Other diagnoses included ALL and chronic myelomonocytic leukemia, or CMML. In December 2013, two patients in the 54 mg/m^2/day dose cohort of the dose escalation achieved complete responses. Based on preclinical data suggesting greater biological activity of uninterrupted drug exposure, these patients were switched from the original intravenous administration schedule, which included a seven-day drug holiday, to an uninterrupted intravenous administration schedule. One of these patients was diagnosed

with AML with an MLL-r translocation. The other patient was diagnosed with CMML with an MLL-r translocation.

During the dose escalation portion of the trial, in addition to the two objective responses, we observed treatment effects of EPZ-5676 in other patients with MLL-r, such as treatment-related leukocytosis, cellular differentiation and maturation in blood and bone marrow and resolution of leukemia-related symptoms such as cachexia, fevers, and leukemia cutis that are consistent with anti-leukemic effects in MLL-r patients.

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Expansion Cohorts. We enrolled 17 MLL-r patients in an expansion cohort at 90 mg/m^2/day from December 2013 to November 2014. These patients received EPZ-5676 with uninterrupted intravenous administration. Of the 17 patients enrolled in the 90 mg/m^2/day expansion cohort, one patient achieved a partial response.

The patients enrolled into the dose escalation cohorts and 90 mg/m^2/day expansion cohort were heavily pre-treated. Of the 42 patients enrolled through these two stages, 29 had received two or more prior therapies. Sixteen of the 42 patients had received at least one prior allogeneic hematopoietic cell transplant.

In the trial results to date, EPZ-5676 has exhibited a favorable safety and tolerability profile. Specifically, two dose-limiting toxicities in 23 total patients treated at the 90 mg/m^2/day dose level have been reported. Leukocytosis, an elevated white blood cell count, has been observed in some patients and is considered treatment-related, but consistent with the therapeutic mechanism of action of EPZ-5676, thus is not considered an adverse event.

The Phase 1 clinical trial is not powered to demonstrate efficacy with statistical significance. However, pending the results of this Phase 1 clinical trial, we plan to use the results of the trial to design any later stage trials that are intended to demonstrate statistical significance and potentially support marketing approval applications. We would do so by enrolling a larger number of patients than enrolled in earlier trials.

Based on the collective findings of the dose escalation experience, and especially that of the 54 mg/m^2/day dose cohort, we have initiated a second expansion cohort, at 54 mg/m^2/day, in 2015, to gain more experience at this dose level. This planned expansion cohort will enroll up to an additional 20 MLL-r patients.

Phase 1 Clinical Trial in Pediatric Patients. In May 2014, we initiated a Phase 1 clinical trial of EPZ-5676 in pediatric patients. This clinical trial is restricted to pediatric patients with MLL-r acute leukemia and is similar in design to the adult trial, with a dose escalation and an expansion cohort that we would expect will enable us to evaluate the safety, pharmacokinetics and pharmacodynamics of escalating doses of EPZ-5676 in patients between the ages of three months and 18 years and also provide a preliminary assessment of efficacy. Patients in this trial are receiving uninterrupted administration of EPZ-5676. We expect to complete enrollment in this Phase 1 trial in the second half of 2015.

Preclinical Studies. Based on a comprehensive program of preclinical testing of EPZ-5676, including several *in vitro* analyses and *in vivo* xenograft studies, we concluded that EPZ-5676 had exhibited appropriate pharmaceutical potential to advance it into clinical development. Key findings from this preclinical program included the following:

In cell lines that include the MLL-r gene alteration, EPZ-5676 inhibited the methylation caused by DOT1L activity in a concentration dependent manner. In these *in vitro* experiments, EPZ-5676 acted in a highly selective manner, inhibiting only the targeted DOT1L-associated methylation and no other histone methyl marks.

We treated nude rat xenograft models in which human MLL-r cells were implanted subcutaneously and allowed to establish tumors. We administered EPZ-5676 to these rats in three dose levels for 21 days by continuous intravenous infusion. Each dose group consisted of ten animals. Dose 1 was 35 mg/kg per day; dose 2 was 70 mg/kg per day; and dose 3 was the delivery vehicle alone, with no EPZ-5676, designed to create a baseline against which the other doses could be compared. In comparison with animals receiving only the vehicle, the 35 mg/kg per day treated group displayed significant tumor growth inhibition, resulting

in tumor stasis in seven of the ten animals that continued for up to seven days past the discontinuation of drug treatment. At the higher dose of 70 mg/kg per day, tumors in nine of the ten animals were reduced to undetectable volumes by the end of the 21 day treatment period. In addition, no tumor regrowth was observed in eight of these nine animals through the end of the study, which was 32 days after the end of the treatment period. These data were published in 2013 in the journal *Blood* in an article entitled *Potent Inhibition of DOT1L as Treatment for MLL-Fusion Leukemia.*

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Companion Diagnostic. We are currently relying on commercially available diagnostics that are commonly used by clinicians to identify and diagnose MLL-r patients.

HMT Collaborations

We have entered into three strategic collaborations for our therapeutic programs. These therapeutic collaborations have provided us with $188.7 million in non-equity funding through December 31, 2014. In addition, as of December 31, 2014, we were owed an additional $2.1 million under these collaborations for research and development services revenue earned and global development co-funding. Our therapeutic collaborations also provide us with development co-funding and the potential for significant research, development, regulatory and sales-based milestone payments as well as royalties or profit sharing on net product sales. In addition, we have entered into a collaboration to develop a companion diagnostic with Roche. Key terms of these collaborations are summarized below.

Therapeutic Collaborations

Celgene

Overview. In April 2012, we entered into a collaboration and license agreement with Celgene to discover, develop and commercialize, in all countries other than the United States, small molecule HMT inhibitors targeting DOT1L, including EPZ-5676, and any other HMT targets from our product platform, excluding the EZH2 HMT and targets covered by our GSK collaboration, which we refer to as the available targets.

Under the terms of the agreement, we received a $65.0 million upfront payment and $25.0 million from the sale of our series C preferred stock to an affiliate of Celgene, of which $3.0 million was considered a premium and included as collaboration arrangement consideration for a total upfront payment of $68.0 million. In addition, we recorded a $25.0 million clinical development milestone payment and $5.8 million of global development co-funding through December 31, 2014. We are also eligible to earn up to $35.0 million in additional clinical development milestone payments and up to $100.0 million in regulatory milestone payments related to DOT1L as well as up to $65.0 million in payments, including a combination of clinical development milestone payments and an option exercise fee, and up to $100.0 million in regulatory milestone payments for each available target as to which Celgene exercises its option during an initial option period ending in July 2015. Celgene has the right to extend the option period until July 2016 by making a significant option extension payment. As to DOT1L and each available target as to which Celgene may exercise its option, we retain all product rights in the United States and are eligible to receive royalties for each target at defined percentages ranging from the mid-single digits to the mid-teens on net product sales outside of the United States, subject to reductions in specified circumstances.

Under the agreement, we granted Celgene an exclusive license, for all countries other than the United States, to HMT inhibitors directed to DOT1L and an option, on a target-by-target basis, to exclusively license, for all countries of the world other than the United States, rights to HMT inhibitors directed to any other HMT targets during the option period, excluding the EZH2 HMT and targets covered by our GSK collaboration. During the option period specified in the agreement, which could extend until July 2016, Celgene has the right to exercise its option to non-U.S. rights to additional HMT targets other than DOT1L until the effectiveness of an IND for an HMT inhibitor directed to such additional HMT target. If Celgene does not exercise its option with respect to an additional HMT target during the applicable exercise period, we retain worldwide rights to HMT inhibitors directed to such target, other than HMT inhibitors that may be provided by Celgene if we were to agree to their introduction.

Research Obligations. We are primarily responsible for the research strategy under the collaboration. During the option period and, as to targets licensed by Celgene during the option period, until effectiveness of an IND for an HMT inhibitor directed to the applicable target if such an IND is not effective upon expiration of the option period, we are required to use commercially reasonable efforts to conduct platform discovery activities necessary

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to characterize and identify additional targets and HMT inhibitors directed to additional targets and targets licensed to Celgene. For the DOT1L target, we are obligated to conduct and solely fund development costs of the Phase 1 clinical trials for EPZ-5676, after which point Celgene and we will equally co-fund global development and each party will solely fund territory-specific development costs for its territory. For each other HMT target licensed to Celgene, we are obligated to conduct and solely fund research and development activities generally through the effectiveness of the first IND for an HMT inhibitor directed to such target, after which point Celgene and we will equally co-fund global development and each party will solely fund territory-specific development costs for its territory for such target.

Governance. Our collaboration with Celgene is guided by joint research, development and commercialization committees. Subject to limitations specified in the agreement, if the applicable governance committee is not able to make a decision by consensus and the parties are not able to resolve the issue through escalation to specified senior executive officers of the parties, then as to licensed programs we generally have final decision-making authority over research and development matters prior to clinical proof-of-concept, Celgene generally has final decision-making authority over global development matters, including over global activities and related expenses that we are obligated to co-fund unless we exercise our opt-out right as to such licensed program, following clinical proof-of-concept. Each party has final decision-making authority over commercialization matters in its respective territory.

Opt-Out Right. On a licensed target-by-licensed target basis, we have the right, in our sole discretion, to opt-out of further participation in and co-funding of development, other than specified costs necessary to complete development activities in process at the time we exercise our opt-out right. We can exercise our opt-out right at specified times before the scheduled initiation of the first pivotal clinical trial or before the estimated date of filing of the first new drug application for an HMT inhibitor directed to the licensed target or any time after regulatory approval of an HMT inhibitor directed to the licensed target. Following an opt-out, we are no longer required to co-fund global development for the applicable program other than specified costs necessary to complete development activities in process at the time we exercise our opt-out right, and we are obligated to grant Celgene an exclusive license to HMT inhibitors directed to the applicable target in the United States. Following our opt-out, if any, we would be eligible to receive specified milestone payments and royalties based on net product sales in the United States of HMT inhibitors directed to the licensed target in the event that Celgene develops and commercializes a product in the United States, which Celgene is not obligated to do.

Exclusivity Restrictions. Subject to exceptions specified in the agreement, during the option period, we may not research, develop or commercialize HMT inhibitors directed to any additional target, other than pursuant to the agreement, and, following the option period, we may not research, develop or commercialize HMT inhibitors directed to any target licensed by Celgene, other than pursuant to the agreement.

Right of First Negotiation. In addition, we granted to Celgene a right of first negotiation with respect to business combination transactions that we may desire to pursue with third parties during the option period under our agreement with Celgene, which includes any extension of this period. During the option period, we are required to notify Celgene if we desire to pursue a specified business combination transaction with a third party prior to negotiating terms with the third party, and after so notifying Celgene we have agreed not to, directly or indirectly, solicit, initiate or encourage proposals from, discuss or negotiate with, or provide any information to, any third party related to the proposed transaction for a specified period from the date we first notify Celgene of such proposed transaction, or the Celgene negotiation period. If Celgene notifies us that it is interested in entering into the proposed transaction, we have agreed to negotiate in good faith with Celgene during the Celgene negotiation period. Following the Celgene negotiation period, if we have not entered into the proposed transaction with Celgene, or if Celgene does not notify us that it is interested in entering into the proposed transaction, we are free to enter into the proposed transaction with a third party for a period of 225 days following the expiration of the Celgene negotiation period, but we are obligated to re-offer the proposed transaction to Celgene if during the option term we propose to enter into the proposed

transaction with a third party on terms that, in specified respects, are less favorable to us than the terms last offered by Celgene.

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Term and Termination. Our agreement with Celgene will expire on a product-by-product and country-by-country basis on the date of the expiration of the applicable royalty term with respect to each licensed product in each country and in its entirety upon the expiration of all applicable royalty terms for all licensed products in all countries. The royalty term for each licensed product in each country is the period commencing with first commercial sale of the applicable licensed product in the applicable country and ending on the latest of expiration of specified patent coverage, specified regulatory exclusivity or 15 years following the first commercial sale in the applicable country. Celgene has the right to terminate the agreement in its entirety, upon 60 or 120 days notice depending on the timing of such termination. The agreement may also be terminated in its entirety during the option period, and on a licensed target-by-licensed target basis after the option period, by either Celgene or us in the event of a material breach by the other party. The agreement may be terminated on a licensed target-by-licensed target basis by either Celgene or us in the event the other party, or an affiliate or sublicensee of the other party, participates or actively assists in a legal challenge to specified patents of the terminating party or in its entirety in the event the other party becomes subject to specified bankruptcy, insolvency or similar circumstances.

GlaxoSmithKline

Overview. In January 2011, we entered into a collaboration and license agreement with GSK to discover, develop and commercialize novel small molecule HMT inhibitors directed to available targets from our product platform. Under the terms of the agreement, we granted GSK the option to obtain exclusive worldwide license rights to HMT inhibitors directed to three targets. In March 2014, we and GSK amended certain terms of this agreement for the third target, revising the license terms with respect to candidate compounds and amending the corresponding financial terms, including reallocating milestone payments and increasing royalty rates as to the third target. Additionally, as part of the research collaboration provided for in the agreement, we agreed to provide research and development services related to the licensed targets pursuant to agreed upon research plans during a research term that ended January 8, 2015, or earlier if selection of a development candidate occurred.

Under the agreement, we recorded an upfront payment of $20.0 million and a $3.0 million payment upon the execution of the March 2014 agreement amendment. Through December 31, 2014, we also received $6.0 million of fixed research funding, $15.0 million of preclinical research and development milestone payments and $9.0 million for research and development services. We are eligible to receive up to $18.0 million in additional preclinical research and development milestone payments, up to $109.0 million in clinical development milestone payments, up to $275.0 million in regulatory milestone payments and up to $218.0 million in sales-based milestone payments. In addition, GSK is required to pay us royalties at percentages between the mid-single digits to the low double-digits, on a licensed product-by-licensed product basis, on worldwide net product sales, subject to reductions in specified circumstances.

For each selected target in the collaboration, we were primarily responsible for research until the earlier of selection of a development candidate for the target or January 8, 2015, and GSK is solely responsible for subsequent development and commercialization. GSK provided a fixed amount of research funding during the second and third years of the research term and was obligated to provide research funding equal to 100.0% of mutually agreed research and development costs, subject to specified limitations, for any research activities we conducted in the fourth year of the research term. In December 2013, we and GSK agreed to the selection of a development candidate for one of the three targets under the agreement, after which point GSK became solely responsible for subsequent development and commercialization.

Exclusivity Provisions. Subject to exceptions specified in the agreement, during the term of the agreement, we may not research, develop or commercialize HMT inhibitors directed to the three targets selected by GSK, other than pursuant to the agreement.

Equity Participation Right. Under the agreement, we also granted GSK the option to acquire up to 10.0% of the securities issued in our next qualified venture capital financing, if any, which meets conditions set forth in the

agreement. We are not obligated to undertake any such financing and one has not occurred since we granted GSK this right.

Term and Termination. The agreement will expire in its entirety upon the expiration of all applicable royalty terms for all licensed products in all countries. The royalty term for each licensed product in each country is the period commencing with first commercial sale of the applicable licensed product in the applicable country and ending on the later of expiration of specified patent coverage or ten years following the first commercial sale. GSK has the right to terminate the agreement at any time with respect to one or more selected targets or in its entirety, upon 90 days prior written notice to us. The agreement may also be terminated with respect to one or more selected targets or in its entirety by either GSK or us in the event of a material breach by the other party. The agreement may be terminated with respect to selected targets by us in the event GSK participates or actively assists in a legal challenge to one of the patents exclusively licensed to GSK under the agreement with respect to the applicable selected target.

Eisai

Overview. In March 2015, we entered into an amended and restated collaboration and license agreement with Eisai, under which we reacquired worldwide rights, excluding Japan, to our EZH2 program, including EPZ-6438. Under the amended and restated collaboration and license agreement, we will be responsible for global development, manufacturing and commercialization outside of Japan of EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. Under the original collaboration and license agreement, we had granted Eisai an exclusive worldwide license to our small molecule HMT inhibitors directed to EZH2, including EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States.

Under the terms of the original agreement, we recorded a $3.0 million upfront payment, $7.0 million in preclinical research and development milestone payments, a $6.0 million clinical development milestone and $22.7 million for research and development services through December 31, 2014, for total consideration received from Eisai of $38.7 million. We were also eligible to earn up to a total of $195.0 million in clinical development, regulatory and sales-based milestone payments and to receive royalties on product sales. Upon the execution of the amended and restated collaboration agreement, we agreed to pay Eisai a $40.0 million upfront payment. We also agreed to pay Eisai up to $20.0 million in clinical development milestone payments, up to $50.0 million in regulatory milestone payments and royalties at a percentage in the mid-teens on worldwide net sales of any EZH2 product, excluding net sales in Japan. We are eligible to receive from Eisai royalties at a percentage in the mid-teens on net sales of any EZH2 product in Japan.

Under the original agreement, Eisai was solely responsible for funding all research, development and commercialization costs for licensed compounds. Under the amended agreement, we will be solely responsible for funding global development, manufacturing and commercialization costs for EZH2 compounds outside of Japan, and Eisai will be solely responsible for funding Japan-specific development and commercialization costs for EZH2 compounds. In connection with the amendment and restatement of our collaboration and license agreement with Eisai, we and Eisai have agreed upon a transition to us of ongoing development and manufacturing activities being conducted by or on behalf of Eisai.

In the event that we seek to license rights to a third party to develop or commercialize an EZH2 product in any country in Asia other than Japan, Eisai has a limited right of first negotiation for such rights. In the event that we are awarded a priority review voucher from the FDA with respect to an EZH2 product, Eisai is entitled to specified compensation if we use the voucher on a non-EZH2 program or sell the voucher to a third party.

Governance. Under the amended and restated collaboration and license agreement, development will be guided by a joint steering committee, with Epizyme retaining final decision making authority with respect to global development.

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Exclusivity Restrictions. Subject to exceptions specified in the agreement, for an exclusivity period extending until eight years after the first commercial sale of a product covered by the agreement, neither we nor Eisai may research, develop or commercialize HMT inhibitors directed to EZH2, other than pursuant to the agreement.

Term and Termination. Our agreement with Eisai will remain in effect until the expiration of all payment obligations under the agreement with respect to all licensed products. The royalty term for each licensed product in each country commences on the first commercial sale of the applicable licensed product in the applicable country and ends on the latest of expiration of specified patent coverage, expiration of specified regulatory exclusivity or ten years following the first commercial sale. We or Eisai may terminate the agreement for convenience as to our respective territories, upon 90 days prior written notice. The agreement will also terminate as to our territory if we cease all development and commercialization activities for the United States and specified major countries in Europe and as to Eisai s territory if Eisai ceases all development and commercialization activities for Japan. The agreement may also be terminated by either party in the event of an uncured material breach by the other party or by us in the event Eisai, or an affiliate or sublicensee, participates or actively assists in an action or proceeding challenging or denying the validity of one of our patents. If we terminate the agreement for our convenience, the agreement terminates as a result of our cessation of development and commercialization activities or Eisai terminates the agreement for our uncured material breach, Eisai may elect to have worldwide development and commercialization rights revert to Eisai, and if Eisai so elects, Eisai will be required to pay us specified royalties on net sales of the licensed products and reimburse certain development expenses incurred by us. If Eisai terminates the agreement for its convenience, the agreement terminates as a result of Eisai s cessation of development and commercialization activities or we terminate the agreement for Eisai s uncured material breach or Eisai s, or its affiliate s or sublicensee s, participation in, or assistance with, an action or proceeding challenging or denying the validity of one of our patents, Japanese development and commercialization rights to the licensed products revert to us, and we will be required to pay Eisai specified royalties on net sales of licensed products in Japan.

Companion Diagnostics

Roche. In December 2012, Eisai and we entered into an agreement with Roche under which we and Eisai were funding Roche s development of a companion diagnostic to identify patients who possess certain point mutations of EZH2. In October 2013, this agreement was amended to include additional point mutations in EZH2. The $21.5 million of development costs under the amended agreement with Roche were the responsibility of Eisai until the execution of our amended and restated collaboration and license agreement with Eisai in March 2015. Upon the execution of the amended and restated collaboration and license agreement with Eisai, we will be responsible for $8.5 million of the remaining development costs under the agreement with Roche.

Under our agreement with Roche, Roche is obligated to use commercially reasonable efforts to develop and to make commercially available the companion diagnostic. Roche has exclusive rights to commercialize the companion diagnostic.

Our agreement with Roche will expire when we are no longer developing or commercializing EPZ-6438. We may terminate the agreement by giving Roche 90 days written notice if we discontinue development and commercialization of EPZ-6438 or determine, in conjunction with Roche, that the companion diagnostic is not needed for use with EPZ-6438. Either we or Roche may also terminate the agreement in the event of a material breach by the other party, in the event of material changes in circumstances that are contrary to key assumptions specified in the agreement or in the event of specified bankruptcy or similar circumstances. Under specified termination circumstances, Roche may become entitled to specified termination fees.

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Intellectual Property

We strive to protect the proprietary technologies that we believe are important to our business, including seeking and maintaining patent protection intended to cover the composition of matter of our product candidates, their methods of use, related technology and other inventions that are important to our business. As more fully described below, in 2014 and through February 2015, four U.S. patents and three foreign patents issued with claims covering various aspects of our DOT1L and EZH2 programs. In that same period, our first two U.S. patents covering PRMT5 inhibitors issued as well as our first U.S patent covering PRMT1 inhibitors. In addition to patent protection, we also rely on trade secrets and careful monitoring of our proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, maintain our licenses to use intellectual property owned by third parties, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and other proprietary rights of third parties. We also rely on know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen, and maintain our proprietary position in the field of HMTs.

A third party may hold intellectual property, including patent rights, that is important or necessary to the development of our products. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially.

We plan to continue to expand our intellectual property estate by filing patent applications directed to dosage forms, methods of treatment and additional HMT inhibitor compounds and their derivatives. Specifically, we seek patent protection in the United States and internationally for novel compositions of matter covering the compounds, the chemistries and processes for manufacturing these compounds and the use of these compounds in a variety of therapies.

The patent positions of biopharmaceutical companies like us 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 do not know whether any of our product candidates will be protectable or remain protected by enforceable patents. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that we hold may be challenged, circumvented or invalidated by third parties.

Because patent applications in the United States and certain other jurisdictions are maintained in secrecy for 18 months, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of the priority of inventions covered by pending patent applications. Moreover, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office, or USPTO, or a foreign patent office to determine priority of invention or in post-grant challenge proceedings, such as oppositions, that challenge priority of invention or other features of patentability. Such proceedings could result in substantial cost, even if the eventual outcome is favorable to us.

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The patent portfolios for our most advanced programs are summarized below.

EZH2. Our EZH2 patent portfolio includes U.S. Patent No. 8,410,088 covering the composition of matter of EPZ-6438. This patent issued on April 2, 2013 and is expected to expire in 2032. Our EZH2 portfolio also includes U.S. Patents Nos.: 8,598,167 which issued on December 3, 2013; 8,691,507, which issued on April 8, 2014; 8,765,732 which issued on July 1, 2014; 8,895,245, which issued on November 25, 2014; and 8,962,620 which issued on February 24, 2015. In 2014, the following foreign patents issued in our EZH2 portfolio: Australian Patents Nos. 2012242595 and 2013203641, and South African Patent No. 2013/07539. All patents that have issued in the EZH2 portfolio are expected to expire in 2031 or 2032. The claims of these patents cover the composition of matter of EZH2 inhibitor compounds and various methods of their making and use. Patent applications in the same families as the patents discussed above are pending in a variety of worldwide jurisdictions, including the United States. The EZH2 program portfolio encompasses a total of twenty two patent families with pending patent applications relating to compositions of matter and methods of making and use. The patent families in this portfolio are in various stages of prosecution and include patent applications filed in a variety of worldwide jurisdictions, including the United States; Patent Cooperation Treaty (PCT) applications that are eligible for filing in most worldwide jurisdictions, including the United States; and U.S. provisional applications that may be used to establish non-provisional U.S. applications, PCT applications and other national filings worldwide. These patents and patent applications are wholly owned by us or jointly owned by us and Eisai. Our patent applications in the EZH2 portfolio, if issued, would be expected to expire between 2031 and 2035.

DOT1L. Our DOT1L patent portfolio includes U.S. Patent No. 8,580,762 covering the composition of matter of EPZ-5676. The patent issued on November 12, 2013 and is expected to expire in 2032. Our DOT1L portfolio also includes US Patent No. 8,722,877 which issued on May 13, 2014 and is expected to expire in 2031. The claims of this patent cover the composition of matter of another DOT1L inhibitor compound. Patent applications in the same family as the patents discussed above are pending in a variety of worldwide jurisdictions, including the United States. The DOT1L program portfolio encompasses a total of seventeen patent families relating to compositions of matter of DOT1L inhibitor compounds and methods of their making and use. The patent families in this portfolio are in various stages of prosecution and include patent families with applications filed in a variety of worldwide jurisdictions including the United States; PCT applications that are eligible for filing in most worldwide jurisdictions, including the United States; and U.S. provisional applications that may be used to establish non-provisional U.S. applications, PCT applications and other national filings worldwide. These patents and patent applications are wholly owned by us. Our patent applications in the DOT1L portfolio, if issued, would be expected to expire between 2031 and 2035.

Other Targets. We also have patent portfolios directed to targets other than EZH2 and DOT1L, including the HMT targets PRMT1, PRMT3, CARM1 (PRMT4), PRMT5, PRMT6 and PRMT8. The first two issued patents in these portfolios, U.S. Patents Nos. 8,906,900 and 8,940,726, cover PRMT5 inhibitors. These patents issued on December 9, 2014 and January 27, 2015, respectively, and are expected to expire in 2033. In addition, U.S. Patent No. 8,952,026, covering PRMT1 inhibitors, issued on February 10, 2015 and is expected to expire in 2034. These portfolios encompass seventeen families with applications that have published and these applications relate to compositions of matter of HMT inhibitor compounds and methods of their making and use. The patent families in the non-EZH2 and non-DOT1L portfolios include patent families with applications filed in the United States, PCT applications that are eligible for filing in most worldwide jurisdictions, including the United States, and U.S. provisional applications that may be used to establish non-provisional U.S. applications, PCT applications and other national filings worldwide. Patents issued in these portfolios are expected to expire between 2033 and 2035.

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.

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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 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 non-United States jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our pharmaceutical products receive FDA approval, we expect to apply for patent term extensions on patents covering those products. We intend 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 even if granted, the length of such extensions.

We also rely on trade secret protection for our confidential and proprietary information. 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. In the case of employees, the agreements provide that all inventions conceived by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property.

UNC In-Licensed Portfolio. In January 2008, we entered into a license agreement with the University of North Carolina at Chapel Hill, or UNC, to discover, develop and commercialize products utilizing specified inventions of UNC. Under the terms of the agreement, we were granted an exclusive, worldwide license under specified patent rights and a non-exclusive worldwide license under specified know-how and biological materials, in each case to discover, develop, manufacture and commercialize pharmaceutical and diagnostic products. The intellectual property we license from UNC includes six issued U.S. patents, four pending U.S. patent applications, 20 patents issued in other jurisdictions and seven patent applications pending in other jurisdictions. The issued patents are expected to expire between 2024 and 2030, and the pending applications, if issued, are expected to expire between 2024 and 2026. The intellectual property we have licensed from UNC is not directly related to our current product candidates, EPZ-6438 and EPZ-5676, and relates solely to screening methods and related materials.

Under the agreement, UNC retained rights, on behalf of itself and other non-profit academic institutions, to practice under the licensed rights for non-profit purposes. The license rights granted to us are further subject to a non-exclusive license granted by UNC to the Howard Hughes Medical institute for research purposes and any rights the United States Government may have in such licensed rights due to its sponsorship of research that led to the creation of the licensed rights. We agreed to pay UNC specified research, development and sales milestone payments aggregating up to $1.9 million and additional payments upon the grant, if any, of sublicenses to non-affiliated third parties. In addition, we are required to pay UNC royalties in the low single-digits on worldwide net product sales of screening method technologies and related materials, but not on any drugs, during the term of the agreement. These royalties do not cover the manufacture, sale or use of any drug products that have been identified and developed by us, such as our EZH2 and DOT1L therapeutics, including EPZ-6438 and EPZ-5676. In connection with the execution of this license agreement in 2008, we issued 98,666 shares of common stock and paid a license fee of $0.1 million to UNC. Through

December 31, 2014, we have paid an aggregate of $0.1 million in milestone payments to UNC. We have not paid any royalties to UNC.

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The agreement terminates upon the expiration of the last valid claim of the licensed patent rights. We may terminate the agreement at any time by giving UNC 60 days written notice. The agreement may also be terminated by UNC in the event of a material breach by us or in the event we become subject to specified bankruptcy or similar circumstances.

Manufacturing

We do not have any manufacturing facilities and currently rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if our product candidates receive marketing approval. Prior to the execution of the amended and restated collaboration and license agreement with Eisai, Eisai manufactured EPZ-6438 for preclinical and clinical development. Upon execution of the amended and restated collaboration and license agreement, as part of the transition plan, Eisai agreed to sell us its inventories of EPZ-6438 clinical supplies and the active pharmaceutical ingredient for EPZ-6438. We plan to seek to obtain additional materials for EPZ-6438 from Eisai and other third party manufacturers. To date, we have obtained materials for EPZ-5676 from multiple third party manufacturers. For both EPZ-6438 and EPZ-5676, we intend to identify and qualify multiple manufacturers to provide the active pharmaceutical ingredient and drug product services prior to submission of a new drug application to the FDA.

All of our drug candidates are small molecules and are manufactured in reliable and reproducible synthetic processes from readily available starting materials. The chemistry is amenable to scale up and does not require unusual equipment in the manufacturing process. We expect to continue to develop drug candidates that can be produced cost-effectively at contract manufacturing facilities.

We generally expect to rely on third parties for the manufacture of any companion diagnostics. We are currently collaborating with Roche for a diagnostic for use with EPZ-6438, and we expect to rely on Roche for the manufacture of the diagnostic it is developing. We may enter into similar agreements for the manufacture of other companion diagnostics.

Commercialization

We have not yet established a sales, marketing or product distribution infrastructure because our lead candidates are still in early clinical development. We generally expect to retain commercial rights in the United States for our product candidates for which we receive marketing approvals and have done so to date other than for the product candidates under our GSK collaboration. We believe that it will be possible for us to access the United States oncology market through a focused, specialized sales force.

Subject to receiving marketing approvals, we expect to commence commercialization activities by building a focused sales and marketing organization in the United States to sell our products. We believe that such an organization will be able to address the community of oncologists who are the key specialists in treating the patient populations for which our product candidates are being developed. Outside the United States, we expect to enter into distribution and other marketing arrangements with third parties for any of our product candidates that obtain marketing approval.

We also plan to build a marketing and sales management organization to create and implement marketing strategies for any products that we market through our own sales organization and to oversee and support our sales force. The responsibilities of the marketing organization would include developing educational initiatives with respect to approved products and establishing relationships with thought leaders in relevant fields of medicine.

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We expect that our collaborators for any companion diagnostics we may develop in the future for use with our therapeutic products will hold the commercial rights to these diagnostic products, as is the case for our collaboration with Roche. We expect to coordinate closely with any diagnostic collaborators in connection with the marketing and sale of any related therapeutic products.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies and public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

There are a large number of companies developing or marketing treatments for cancer, including many major pharmaceutical and biotechnology companies. In addition, many companies are developing cancer therapeutics that work by targeting epigenetic mechanisms other than HMTs, and some including Celgene and Eisai, are now marketing cancer treatments that work by targeting epigenetic mechanisms other than HMTs. There are also companies developing new epigenetic treatments for cancer that target HMTs, including GSK, Novartis AG, Pfizer, Inc., Genentech, Inc. and Constellation Pharmaceuticals.

Many of the companies against which we are competing or against which we may compete in the future 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. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. 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.

The key competitive factors affecting the success of all of our therapeutic product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, the level of generic competition and the availability of reimbursement from government and other third party payors.

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 or are less expensive than any products that we may develop. 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. In addition, our ability to compete may be affected in many cases by insurers or other third party payors seeking to encourage the use of generic products. Generic products that broadly address these indications are currently on the market for the indications that we are pursuing, and additional products are expected to become available on a generic basis over the coming years. If our product candidates achieve marketing approval, we expect that they will be priced at a significant premium over competitive generic products.

The most common methods of treating patients with cancer are surgery, radiation and drug therapy. There are a variety of available drug therapies marketed for cancer. In many cases, these drugs are administered in combination to enhance efficacy. While our product candidates may compete with many existing drug and other therapies, to the extent they are ultimately used in combination with or as an adjunct to these therapies, our product candidates will not be competitive with them. Some of the currently approved drug therapies are branded

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and subject to patent protection, and others are available on a generic basis. Many of these approved drugs are well established therapies and are widely accepted by physicians, patients and third party payors.

In addition to currently marketed therapies, there are also a number of products in late stage clinical development to treat cancer. These products in development may provide efficacy, safety, convenience and other benefits that are not provided by currently marketed therapies. As a result, they may provide significant competition for any of our product candidates for which we obtain marketing approval.

If our lead product candidates are approved for the indications for which we are currently undertaking clinical trials, they will compete with the therapies and currently marketed drugs discussed below.

EPZ-6438. The most common treatments for DLBCL and FL are chemotherapies, usually combined with the monoclonal antibody Rituxan®. While Rituxan® is currently the only therapy with specific indications for DLBCL and FL, a number of other widely used anti-cancer agents have broad labels that include non-Hodgkin lymphoma. No therapies are approved specifically for the treatment of tumors associated with the oncogenic mutation of EZH2. The clinical course of synovial sarcoma is characterized by frequent and late local or metastatic recurrence and there are no specific of effective treatments available for synovial sarcoma after failure of doxorubicin-based treatment. Current treatment for MRT consists of intensive chemotherapy and radiation therapy.

EPZ-5676. There are no approved therapies specifically indicated for MLL-r. There are, however, currently approved therapies for acute leukemias in general and a variety of other malignancies. The current standard of care depends on the specific lineage of the leukemia. Patients with AML and ALL typically are treated with intensive multi-agent chemotherapy and high risk patients who enter remission and have a matched donor often receive an allogeneic stem cell transplant.

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacture, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, import and export of pharmaceutical products such as those we are developing. The processes for obtaining regulatory approvals in the United States and in foreign countries, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

United States Government Regulation

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing 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 United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA s refusal to approve pending new drug applications, or NDAs, withdrawal of an approval, imposition of a clinical hold, issuance of warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA s good laboratory practice, or GLP, regulations;

submission to the FDA of an IND which must become effective before human clinical trials may begin;

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approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;

performance of human clinical trials, including adequate and well-controlled clinical trials, in accordance with good clinical practices, or GCP, to establish the safety and efficacy of the proposed drug product for each indication;

submission to the FDA of an NDA;

satisfactory completion of an FDA advisory committee review, if applicable;

satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practices, or cGMP, and to assure that the facilities, methods and controls are adequate to preserve the drug s identity, strength, quality and purity, as well as satisfactory completion of an FDA inspection of selected clinical sites to determine GCP compliance; and

FDA review and approval of the NDA.

Preclinical Studies. Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even 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 clinical trial on a 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 involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must continue to oversee the clinical trial while it is being conducted. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their ClinicalTrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined. In Phase 1, the drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an initial indication of its effectiveness. In Phase 2, the drug typically is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted

diseases and to determine dosage tolerance and optimal dosage. In Phase 3, the drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend

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or terminate a clinical trial at any time on various grounds, including a finding that the research subjects 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 has been associated with unexpected serious harm to patients.

Marketing Approval. Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product s chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has agreed to certain performance goals regarding the timing of its review of an application.

In addition, under the Pediatric Research Equity Act, or PREA, an NDA or supplement to an NDA must contain data that are adequate to assess the safety and effectiveness 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, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

The FDA also may require submission of a risk evaluation and mitigation strategy, or REMS, plan to mitigate any identified or suspected serious risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product s continued safety, quality and purity.

The FDA typically refers a question regarding a novel drug to an external advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application 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. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical trial sites to assure compliance with GCP.

The testing and approval process for an NDA requires substantial time, effort and financial resources, and each may take several years to complete. Data obtained from preclinical and clinical testing are not always conclusive and may

be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval of an NDA on a timely basis, or at all.

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After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing in order for FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA s satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, including a boxed warning, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug s safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms under a REMS which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Special FDA Expedited Review and Approval Programs. The FDA has various programs, including fast track designation, accelerated approval, priority review and breakthrough designation, that are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures. To be eligible for a fast track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors.

The FDA may give a priority review designation to drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. These six and ten month review periods are measured from the filing date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for fast track designation are also likely to be considered appropriate to receive a priority review.

In addition, products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has 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, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug may be subject to accelerated withdrawal procedures.

Moreover, under the provisions of the new Food and Drug Administration Safety and Innovation Act, or FDASIA, enacted in 2012, a sponsor can request designation of a product candidate as a breakthrough therapy.

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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 existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

FDA Regulation of Companion Diagnostics. Our drug products may rely upon *in vitro* companion diagnostics for use in selecting the patients that we believe will respond to our cancer therapeutics. FDA officials have issued guidance that addresses issues critical to developing *in vitro* companion diagnostics, such as when the FDA will require that the diagnostic and the drug be approved simultaneously. The guidance issued in August 2014 states that if safe and effective use of a therapeutic product depends on an *in vitro* diagnostic, then the FDA generally will require approval or clearance of the diagnostic at the same time that the FDA approves the therapeutic product.

The FDA previously has required *in vitro* companion diagnostics intended to select the patients who will respond to the cancer treatment to obtain Pre-Market Approval, or PMA, simultaneously with approval of the drug. Based on the guidance, and the FDA s past treatment of companion diagnostics, we believe that the FDA will require PMA approval of one or more *in vitro* companion diagnostics to identify patient populations suitable for our cancer therapies. The review of these *in vitro* companion diagnostics in conjunction with the review of our cancer treatments involves coordination of review by the FDA s Center for Drug Evaluation and Research and by the FDA s Center for Devices and Radiological Health Office of In Vitro Diagnostics Device Evaluation and Safety.

Post-Approval Requirements. Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials and surveillance to further assess and monitor the product s safety and effectiveness after commercialization.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market.

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Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Although physicians, in the practice of medicine, may prescribe approved drugs for unapproved indications, pharmaceutical companies generally are required to promote their drug products only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

Federal and State Fraud and Abuse and Data Privacy and Security Laws and Regulations. In addition to FDA restrictions on marketing of pharmaceutical products, federal and state fraud and abuse laws restrict business practices in the biopharmaceutical industry. These laws include anti-kickback and false claims laws and regulations as well as data privacy and security laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering, or arranging for or recommending the purchase, lease, or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term remuneration has been broadly interpreted to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting some common activities from prosecution, the exemptions and safe harbors are

drawn narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Several courts have interpreted the statute s intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated.

The reach of the Anti-Kickback Statute was also broadened by the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively PPACA, which, among other things, amended the intent requirement of the federal Anti-Kickback Statute such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, PPACA 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

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for purposes of the civil False Claims Act or the civil monetary penalties statute, which imposes penalties against any person who is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. PPACA also created new federal requirements for reporting, by applicable manufacturers of covered drugs, payments and other transfers of value to physicians and teaching hospitals.

The federal False Claims Act prohibits any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. A claim includes any request or demand for money or property presented to the U.S. government. Several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies marketing of products for unapproved, and thus non-reimbursable, uses. The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third party payors and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Also, many states have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and its implementing regulations, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA s privacy and security standards directly applicable to business associates, defined as independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney s fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

Coverage and Reimbursement. The commercial success of our product candidates and our ability to commercialize any approved product candidates successfully will depend in part on the extent to which governmental authorities, private health insurers and other third party payors provide coverage for and establish adequate reimbursement levels for our therapeutic product candidates and related companion diagnostics. Government health administration authorities, private health insurers and other organizations generally decide which drugs they will pay for and establish reimbursement levels for healthcare. In particular, in the United States, private health insurers and other third party payors often provide reimbursement for products and services based on the level at which the government (through the Medicare or Medicaid programs) provides reimbursement for such treatments. In the United States, the European Union and other potentially significant markets for our product candidates, government authorities and third party payors are increasingly attempting to limit or regulate the price of medical products and services, particularly for

new and innovative products and therapies, which often has resulted in average selling prices lower than they would otherwise be. Further, the

increased emphasis on managed healthcare in the United States and on country and regional pricing and reimbursement controls in the European Union will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our future product sales and results of operations. These pressures can arise from rules and practices of managed care groups, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical reimbursement policies and pricing in general.

Third party payors are increasingly imposing additional requirements and restrictions on coverage and limiting reimbursement levels for medical products. For example, federal and state governments reimburse covered prescription drugs at varying rates generally below average wholesale price. These restrictions and limitations influence the purchase of healthcare services and products. Legislative proposals to reform healthcare or reduce costs under government insurance programs may result in lower reimbursement for our products and product candidates or exclusion of our products and product candidates from coverage. The cost containment measures that healthcare payors and providers are instituting and any healthcare reform could significantly reduce our revenues from the sale of any approved product candidates. We cannot provide any assurances that we will be able to obtain and maintain third party coverage or adequate reimbursement for our product candidates in whole or in part.

Impact of Healthcare Reform on Coverage, Reimbursement, and Pricing. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, imposed new requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Part D plans include both standalone prescription drug benefit plans and prescription drug coverage as a supplement to Medicare Advantage plans. Unlike Medicare Part A and B, Part D coverage is not standardized. 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 any products for which we receive marketing approval. However, any negotiated prices for our future products covered by a Part D prescription drug plan will likely 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 Medicare Part D may result in a similar reduction in payments from non-governmental payors.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research will be developed by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures will be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of any product, if any such product or the condition that it is intended to treat is the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits in a competitor s product could adversely affect the sales of our product candidates. If third party payors do not consider our product candidates to be cost-effective compared to other available therapies, they may not cover our product candidates, once approved, as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The United States and some foreign jurisdictions are considering enacting or have enacted a number of additional legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payors in the United States and elsewhere, there is significant

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interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives, including, most recently, PPACA, which became law in March 2010 and substantially changes the way healthcare is financed by both governmental and private insurers. Among other cost containment measures, the PPACA establishes an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents; a new Medicare Part D coverage gap discount program; and a new formula that increases the rebates a manufacturer must pay under the Medicaid Drug Rebate Program. In the future, there may continue to be additional proposals relating to the reform of the U.S. healthcare system, some of which could further limit the prices we are able to charge for our product candidates, once approved, or the amounts of reimbursement available for our product candidates once they are approved.

Exclusivity and Approval of Competing Products

Hatch-Waxman Patent Exclusivity. In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent with claims that cover the applicant s product or a method of using the product. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA s Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential competitors in support of approval of an abbreviated new drug application, or ANDA, or 505(b)(2) NDA. Generally, an ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths, dosage form and route of administration as the listed drug and has been shown to be bioequivalent through *in vitro* or *in vivo* testing or otherwise to the listed drug. ANDA applicants are not required to conduct or submit results of preclinical or clinical tests to prove the safety or effectiveness of their drug product, other than the requirement for bioequivalence testing. Drugs approved in this way are commonly referred to as generic equivalents to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug. 505(b)(2) NDAs generally are submitted for changes to a previously approved drug product, such as a new dosage form or indication.

The ANDA or 505(b)(2) NDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA s Orange Book, except for patents covering methods of use for which the ANDA applicant is not seeking approval. Specifically, the applicant must certify with respect to each patent that:

- the required patent information has not been filed;
- the listed patent has expired;
- the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or
- the listed patent is invalid, unenforceable, or will not be infringed by the new product.

Generally, the ANDA or 505(b)(2) NDA cannot be approved until all listed patents have expired, except when the ANDA or 505(b)(2) NDA applicant challenges a listed drug. A certification that the proposed product will not infringe the already approved product s listed patents or that such patents are invalid or unenforceable is called a

Paragraph IV certification. If the applicant does not challenge the listed patents or indicate that it is not seeking approval of a patented method of use, the ANDA or 505(b)(2) NDA application will not be approved until all the listed patents claiming the referenced product have expired.

If the ANDA or 505(b)(2) NDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the application has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days after the receipt of notice of the Paragraph IV certification automatically prevents the FDA from approving the ANDA or 505(b)(2) NDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA applicant.

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Hatch Waxman Non-Patent Exclusivity. Market and data exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications for competing products. The FDCA provides a five-year period of non-patent data exclusivity within the United States to the first applicant to gain approval of an 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 activity of the drug substance. During the exclusivity period, the FDA may not accept for review an ANDA or a 505(b)(2) NDA submitted by another company that contains the previously approved active moiety. However, an ANDA or 505(b)(2) NDA 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 an NDA, 505(b)(2) NDA, or supplement to an existing NDA or 505(b)(2) 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 or supplement. Three-year exclusivity may be awarded for changes to a previously approved drug product, such as new indications, dosages, strengths or dosage forms of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and, as a general matter, does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for generic versions of the original, unmodified drug product. 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.

Orphan Drug Exclusivity. The Orphan Drug Act provides incentives for the development of drugs intended to treat rare diseases or conditions, which generally are diseases or conditions affecting less than 200,000 individuals annually in the United States. If a sponsor demonstrates that a drug is intended to treat a rare disease or condition, the FDA grants orphan drug designation to the product for that use. The benefits of orphan drug designation include research and development tax credits and exemption from user fees. A drug that is approved for the orphan drug designated indication is granted seven years of orphan drug exclusivity. During that period, the FDA generally may not approve any other application for the same product for the same indication, although there are exceptions, most notably when the later product is shown to be clinically superior to the product with exclusivity. We intend to seek orphan drug designation and exclusivity for our products whenever it is available and have been granted orphan drug designation in the United States and the European Union for EPZ-5676.

Pediatric Exclusivity. Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including the non-patent and orphan drug exclusivity periods described above. This six-month exclusivity may be granted if an NDA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA s request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity or Orange Book listed patent protection cover the drug are extended by six months. This is not a patent term extension, but it effectively extends the regulatory period during which the FDA cannot approve an ANDA or 505(b)(2) application owing to regulatory exclusivity or listed patents. When any of our products is approved, we anticipate seeking pediatric exclusivity when it is appropriate.

Foreign Regulation

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our products. For example, in the European

Union, we must obtain authorization of a clinical trial application, or CTA, in each member state in which we intend to conduct a clinical trial. Whether or not we obtain FDA approval for a product, we would need

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to obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others.

European Union Drug Approval Process. To obtain marketing approval of a drug under European Union regulatory systems, we may submit marketing authorization applications, or MAAs, either under a centralized or decentralized procedure. The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The centralized procedure is compulsory for medicines produced by specified biotechnological processes, products designated as orphan medicinal products, and products with a new active substance indicated for the treatment of specified diseases, and optional for those products that are highly innovative or for which a centralized process is in the interest of patients. Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the Scientific Advice Working Party of the Committee of Medicinal Products for Human Use, or the CHMP. Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of a major public health interest, defined by three cumulative criteria: the seriousness of the disease, such as heavy disabling or life-threatening diseases, to be treated; the absence or insufficiency of an appropriate alternative therapeutic approach; and anticipation of high therapeutic benefit. In this circumstance, the European Medicines Agency, or EMA, ensures that the opinion of the CHMP is given within 150 days.

The EMA grants orphan drug designation to promote the development of products that may offer therapeutic benefits for life-threatening or chronically debilitating conditions affecting not more than five in 10,000 people in the European Union. In addition, orphan drug designation can be granted if the drug is intended for a life threatening, seriously debilitating or serious and chronic condition in the European Union and without incentives it is unlikely that sales of the drug in the European Union would be sufficient to justify developing the drug. Orphan drug designation is only available if there is no other satisfactory method approved in the European Union of diagnosing, preventing or treating the condition, or if such a method exists, the proposed orphan drug will be of significant benefit to patients. Orphan drug designation provides opportunities for free protocol assistance, fee reductions for access to the centralized regulatory procedures before and during the first year after marketing authorization and 10 years of market exclusivity following drug approval. Fee reductions are not limited to the first year after authorization for small and medium enterprises. The exclusivity period may be reduced to six years if the designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

The decentralized procedure provides for approval by one or more other, or concerned, member states of an assessment of an application performed by one member state, known as the reference member state. Under this procedure, an applicant submits an application, or dossier, and related materials, including a draft summary of product characteristics, and draft labeling and package leaflet, to the reference member state and concerned member states. The reference member state prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state s assessment report, each concerned member state must decide whether to approve the assessment report and related materials. If a member state cannot approve the assessment report and related materials on the grounds of potential serious risk to public health, the disputed points may eventually be referred to the European Commission, whose decision is binding on all member states. For the EMA, a Pediatric Investigation Plan, or a request for waiver or deferral, is required for submission prior to submitting an MAA for use for drugs in pediatric populations.

In the European Union, new chemical entities qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity. This data exclusivity, if granted, prevents regulatory authorities in the European Union from assessing a generic (abbreviated) application for eight years,

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after which generic marketing authorization can be submitted but not approved for two years. Even if a compound is considered to be a new chemical entity and the sponsor is able to gain the prescribed period of data exclusivity, another company nevertheless could also market another version of the drug if such company can complete a full MAA with a complete human clinical trial database and obtain marketing approval of its product.

Employees

As of February 28, 2015, we had 86 full-time employees, 61 of whom were primarily engaged in research and development activities and 42 of whom have an M.D. or Ph.D. degree.

Executive Officers of the Company

The following table sets forth the name, age and position of each of our executive officers as of February 28, 2015.

Name	Age	Position
Robert J. Gould, Ph.D.	60	President, Chief Executive Officer and Director
Andrew E. Singer	44	Executive Vice President of Finance and Administration, Chief Financial Officer and Treasurer
Robert A. Copeland, Ph.D.	58	President of Research and Chief Scientific Officer
Peter T.C. Ho, M.D., Ph.D.	53	Chief Development Officer

Robert J. Gould, Ph.D. has served as a director since March 2008 and our Chief Executive Officer since March 2010. Prior to joining Epizyme, from November 2006 to March 2010, Dr. Gould served as Director of Novel Therapeutics at The Broad Institute of MIT and Harvard, or Broad, a research institute. Prior to that, Dr. Gould was Vice President, Licensing and External Research, Merck Research Laboratories, at Merck & Co., Inc., or Merck, a healthcare company, where he held a variety of leadership positions during his tenure of over 20 years. Dr. Gould received a B.A. from Spring Arbor College and a Ph.D. from The University of Iowa and undertook post-doctoral studies at The Johns Hopkins University. We believe that Dr. Gould s detailed knowledge of our company and his over 30 years in the pharmaceutical and biotechnology industries, including his roles at Broad and at Merck, provide a valuable contribution to our board of directors.

Andrew E. Singer has served as our Executive Vice President, Finance and Administration, Chief Financial Officer and Treasurer since February 2015. Prior to joining us, from 2004 to January 2015, Mr. Singer served in increasing levels of responsibility in the Health Care Investment Banking Group at RBC Capital Markets Corporation, or RBC, an investment bank, serving as a Managing Director from 2007 to 2015. Prior to joining RBC, Mr. Singer worked at Petkevitch & Company, co-founded MVC Capital, and worked at Robertson, Stephens & Co, The Shansby Group and The Blackstone Group. Mr. Singer serves on the board of directors of the J.F. Kapnek Trust. Mr. Singer received a B.A. from Yale University and an M.B.A. from Harvard University Graduate School of Business.

Robert A. Copeland, Ph.D. has served as our President of Research and Chief Scientific Officer since January 2015 and previously served as our Executive Vice President and Chief Scientific Officer from September 2008 to January 2015. Prior to joining us, from January 2003 to September 2008, Dr. Copeland was Vice President, Cancer Biology, Oncology Center of Excellence in Drug Discovery, at GSK, a pharmaceutical company. Before joining GSK, Dr. Copeland held scientific staff positions at Merck Research Laboratories of Merck and Bristol-Myers Squibb Company, a biopharmaceutical company, and a faculty position at the University of Chicago Pritzker School of Medicine. Dr. Copeland received a B.S. in chemistry from Seton Hall University, a Ph.D. in chemistry from Princeton University and did postdoctoral studies as the Chaim Weizmann Fellow at the California Institute of Technology.

Peter T.C. Ho, M.D., Ph.D. has served as our Chief Development Officer since September 2014. Prior to joining us, from February 2013 to September 2014, Dr. Ho served as Chief Executive Officer of Metastagen Inc., a pharmaceutical preparation company that he co-founded. Prior to that, Dr. Ho served as President of BeiGene

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Ltd., a biopharmaceutical company that he co-founded, from October 2010 to December 2012, as Vice President of Oncology Development at Johnson & Johnson from September 2008 to September 2010 and, prior to that, as Senior Vice President of the Oncology Center of Excellence for Drug Development at GSK. Dr. Ho is a board-certified pediatric hematologist/oncologist and was formerly a fellow at the Dana-Farber Cancer Institute, the National Cancer Center Institute, or NCI, and the FDA. He received a B.A. in biology from the Johns Hopkins University and an M.D. and Ph.D. (pharmacology) from the Yale University School of Medicine.

Our Corporate Information

We were incorporated under the laws of the state of Delaware on November 1, 2007 under the name Epizyme, Inc. Our principal executive offices are located at 400 Technology Square, Cambridge, Massachusetts 02139. Our telephone number is (617) 229-5872, and our website is located at www.epizyme.com. References to our website are inactive textual references only and the content of our website should not be deemed incorporated by reference into this Form 10-K.

Available Information

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, are available free of charge on our website located at www.epizyme.com as soon as reasonably practicable after they are filed with or furnished to the Securities and Exchange Commission (the SEC). These reports are also available at the SEC s Internet website at www.sec.gov. The public may also read and copy any materials filed with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330.

A copy of our Corporate Governance Guidelines, Code of Business Conduct and Ethics and the charters of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are posted on our website, www.epizyme.com, under Investor Center and are available in print to any person who requests copies by contacting Epizyme by calling (617) 229-5872 or by writing to Epizyme, Inc., 400 Technology Square, Cambridge, Massachusetts 02139.

Item 1A. Risk Factors

Careful consideration should be given to the following risk factors, in addition to the other information set forth in this Annual Report on Form 10-K and in other documents that we file with the SEC, in evaluating the Company and our business. Investing in our common stock involves a high degree of risk. If any of the following risks and uncertainties actually occurs, our business, prospects, financial condition and results of operations could be materially and adversely affected. The risks described below are not intended to be exhaustive and are not the only risks facing the Company. New risk factors can emerge from time to time, and it is not possible to predict the impact that any factor or combination of factors may have on our business, prospects, financial condition and results of operations.

Risks Related to the Discovery and Development of Our Product Candidates

Our research and development is focused on the creation of novel epigenetic therapies for cancer patients, which is a rapidly evolving area of science, and the approach we are taking to discover and develop drugs is novel and may never lead to marketable products.

The discovery of novel epigenetic therapies for cancer patients is an emerging field, and the scientific discoveries that form the basis for our efforts to discover and develop product candidates are relatively new. The scientific evidence to support the feasibility of developing product candidates based on these discoveries is both

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preliminary and limited. Although epigenetic regulation of gene expression plays an essential role in biological function, very few drugs premised on epigenetics have been discovered. Moreover, those drugs based on an epigenetic mechanism that have received marketing approval are in a different target class than HMTs, where our research and development is focused. Although preclinical studies suggest that genetic alterations in HMTs cause them to drive particular human cancers, to date no company has translated these biological observations into systematic drug discovery that has yielded a drug that has received marketing approval. We believe that we are the first company to conduct a clinical trial of an HMT inhibitor. Therefore, we do not know if our approach of inhibiting HMTs to treat cancer patients will be successful.

We are early in our development efforts and have only two product candidates in clinical trials. All of our other product candidates are still in preclinical development. If we are unable to commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.

We are early in our development efforts and have only two product candidates in clinical trials. All of our other product candidates are still in preclinical development. We have invested substantially all of our efforts and financial resources in the identification and preclinical and clinical development of HMT inhibitors. Our ability to generate product revenues, which we do not expect will occur for several years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on several factors, including the following:

- successful completion of preclinical studies and clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- making arrangements with third party manufacturers for, or establishing, commercial manufacturing capabilities;
- launching commercial sales of the products, if and when approved, whether alone or in collaboration with others;
- acceptance of the products, 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;

protecting our rights in our intellectual property portfolio; and

maintaining a continued acceptable safety profile of the products 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 our product candidates, which would materially harm our business.

We may not be successful in our efforts to use and expand our product platform to build a pipeline of product candidates.

A key element of our strategy is to use and expand our product platform to build a pipeline of small molecule inhibitors of HMT targets and progress these product candidates through clinical development for the treatment of a variety of different types of cancer. Although our research and development efforts to date have resulted in a pipeline of programs directed at specific HMT targets, we may not be able to develop product candidates that are safe and effective HMT inhibitors. Even if we are successful in continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being

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shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance. If we do not successfully develop and commercialize product candidates based upon our technological approach, we will not be able to obtain product revenues in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

Clinical drug development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

Two of our product candidates are in early clinical development, and our remaining product candidates are in preclinical development. The risk of failure for each of our product candidates is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans.

Product candidates are subject to continued preclinical safety studies which may be conducted concurrent with our clinical testing. The outcomes of these safety studies may delay the launch of or enrollment in future clinical studies. For example, in the course of our ongoing preclinical safety studies of EPZ-6438, we observed the development of lymphoma in a single study in Sprague Dawley rats. We have informed the relevant European regulatory authorities, the FDA and the clinical investigators of this finding in rats, and are in active discussions with the regulatory authorities. Expansion of trials of EPZ-6438 to the United States will require that we submit an IND and that we address this matter to the satisfaction of the FDA within the context of patient risk-benefit and in view of the safety and efficacy data from our ongoing Phase 1/2 clinical study. If we are unable to adequately address this matter, we may be unable to expand our planned clinical trials of EPZ-6438 into the United States, our trials may be limited to certain patient populations or our ability to conduct trials in the United States may be delayed.

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 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. For example, the complete responses that were observed in two MLL-r patients in the fourth dose cohort of the dose escalation portion of our Phase 1 clinical trial of EPZ-5676 were observed in only two of the MLL-r patients enrolled in the trial through the first expansion cohort of the Phase 1 trial, were achieved in an open-label setting, are not statistically significant and might not be achieved by any other patient treated with EPZ-5676. 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 products.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- regulators or institutional review boards 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 clinical trial contracts or clinical trial protocols with prospective trial sites;

clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;

preclinical testing may produce results as a result of which we may decide, or regulators may require us, to conduct additional preclinical studies before we proceed with certain clinical trials, limit the scope of our clinical trials, halt ongoing clinical trials or abandon product development programs;

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the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials 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;

we may have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks;

regulators or institutional review boards 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 unacceptable health risks;

the cost of clinical trials of our product candidates may be greater than we anticipate;

the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and

our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or institutional review boards to suspend or terminate the trials.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our 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 our product candidates;

not obtain marketing approval at all;

obtain approval for indications or patient populations that are not as broad as intended or desired;

obtain approval with labeling or a risk evaluation mitigation strategy that includes significant use or distribution restrictions or safety warnings;

be subject to additional 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 clinical testing or in obtaining marketing approvals. We do not know whether any of our preclinical studies or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the United States Food and Drug Administration, or FDA, or similar regulatory authorities outside of the United States. In particular, because certain of our products may be focused on specific patient populations, our ability to enroll eligible patients may be limited or may result in slower enrollment than we anticipate. In addition, some of our competitors have ongoing clinical trials for product candidates that may treat the broader patient populations within which our product candidates are being developed for the treatment of a subset of identifiable cancer patients, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors product candidates.

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Patient enrollment is affected by other factors including:

- the severity of the disease under investigation;
- the eligibility criteria for the trial in question;
- the perceived risks and benefits of the product candidate under trial;
- the efforts to facilitate timely enrollment in clinical trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates, which may cause the value of our company to decline and limit our ability to obtain additional financing.

Following our general product development strategy, we have designed our ongoing clinical trials of EPZ-6438 and EPZ-5676, and expect to design future trials, to include some patients with the applicable genetic alteration that we believe causes the disease with a view to assessing possible early evidence of potential therapeutic effect. If we are unable to include patients with the applicable genetic alteration, this could compromise our ability to seek participation in FDA expedited review and approval programs, including breakthrough therapy and fast track designation, or otherwise to seek to accelerate clinical development and regulatory timelines.

If serious adverse or unacceptable side effects are identified during the development of our product candidates, we may need to abandon or limit our development of some of our product candidates.

If our product candidates are associated with undesirable side effects in clinical trials or have characteristics that are unexpected in clinical trials or preclinical testing, we may need to abandon their development or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. In pharmaceutical development, many compounds that initially show promise in early stage testing for treating cancer are later found to cause side effects that prevent further development of the compound.

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

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications 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 product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate 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 product candidate.

If we are unable to successfully develop companion diagnostics for our therapeutic product candidates when needed, or experience significant delays in doing so, we may not achieve marketing approval or realize the full commercial potential of our therapeutic product candidates.

We intend to develop companion diagnostics for our therapeutic product candidates to identify patients for our clinical trials who have the specific cancers that we are seeking to treat as appropriate and when existing,

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available technology may not be sufficient to identify those patients. We expect that, at least in some cases, the FDA and similar regulatory authorities outside of the United States may require the development and regulatory approval of a companion diagnostic as a condition to approving our therapeutic product candidates. We do not have experience or capabilities in developing or commercializing diagnostics and plan to rely in large part on third parties to perform these functions. For example, we have entered into an agreement with Roche to develop and commercialize a companion diagnostic for use with EPZ-6438 for non-Hodgkin lymphoma patients with EZH2 point mutations.

We may seek to enter into similar agreements for our other therapeutic product candidates and possible expansion indications. Companion diagnostics are subject to regulation by the FDA and similar regulatory authorities outside of the United States as medical devices and require separate regulatory approval prior to commercialization.

If we, or any third parties that we engage to assist us, are unable to successfully develop companion diagnostics that are needed for our therapeutic product candidates, or experience delays in doing so:

- the development of our therapeutic product candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;
- our therapeutic product candidates may not receive marketing approval if their safe and effective use depends on a companion diagnostic; and
- we may not realize the full commercial potential of any therapeutic product candidates that receive marketing approval if, among other reasons, we are unable to appropriately identify patients with the specific genetic alterations targeted by our therapeutic product candidates.

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

Risks Related to Our Financial Position and Need For Additional Capital

We have incurred significant losses since our inception. We expect to incur losses over the next several years and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses. Our net loss was $55.0 million for the year ended December 31, 2014. As of December 31, 2014, we had an accumulated deficit of $111.1 million. To date, we have financed our operations primarily through our collaborations, our public offerings, and private placements of our preferred stock. All of our revenue to date has been collaboration revenue. We have devoted substantially all of our financial resources and efforts to research and development, including preclinical studies and, beginning in 2012, clinical trials. We are still in the early stages of development of our product candidates, and we have not completed development of any drugs. We expect to continue to incur significant expenses and operating losses over the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially over the next several years as we:

- assume responsibility from Eisai for the ongoing Phase 1/2 clinical trial of EPZ-6438 for treatment of patients with non-Hodgkin lymphoma and solid tumors;

pay the upfront payment and any milestone payments provided for and achieved under the amended and restated collaboration and license agreement with Eisai;

initiate our planned clinical trials of EPZ-6438 in adult and pediatric patients with INI1-deficient tumors;

continue our Phase 1 clinical trial of EPZ-5676 for treatment of adult patients with MLL-r;

continue our Phase 1 clinical trial of EPZ-5676 in pediatric patients with MLL-r;

continue the research and development of our other product candidates;

seek to discover and develop additional product candidates;

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- seek regulatory approvals for any product candidates that successfully complete clinical trials;
- ultimately establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize any products for which we may obtain regulatory approval;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

In addition, we expect our use of cash to significantly increase as a result of the amended and restated collaboration and license agreement with Eisai. Upon the execution of the amended and restated collaboration and license agreement, we agreed to pay Eisai a $40.0 million upfront payment. We also agreed to pay Eisai up to $20.0 million in clinical development milestone payments, up to $50.0 million in regulatory milestone payments and royalties at a percentage in the mid-teens on worldwide net sales of any EZH2 product, excluding net sales in Japan. In addition, we are responsible for solely funding global development, manufacturing and commercialization costs for EZH2 compounds. Prior to the amended and restated agreement, Eisai was responsible for solely funding all research, development and commercialization costs for licensed compounds.

To become and remain profitable, we must succeed in developing, and eventually commercializing, products that generate significant revenue. The ability to achieve this success will require us to be effective in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, discovering additional product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling any products for which we may obtain regulatory approval. We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. If we are required by the FDA, the European Medicines Agency, or EMA, or other regulatory authorities to perform studies in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of any of our product candidates, our expenses could increase.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings or even continue our operations. A decline in the value of our company could cause our stockholders to lose all or part of their investment in our company.

We will need substantial additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our expenses to increase in connection with our ongoing activities, particularly as we assume control of the EZH2 program from Eisai, pay the upfront and any milestone payments provided for and achieved under the amended and restated collaboration and license agreement and assume responsibility for the funding of the program moving forward, including our ongoing Phase 1/2 clinical trial of EPZ-6438; initiate our planned clinical trials of EPZ-6438 in adult and pediatric patients with INI1-deficient tumors; continue the Phase 1 clinical trial of EPZ-5676 in MLL-r adult patients and the Phase 1 clinical trial of EPZ-5676 in pediatric patients with MLL-r; and continue research and development and initiate additional clinical trials of, and seek regulatory approval for, these product candidates and other product candidates. In addition, if we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product

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manufacturing, marketing, sales and distribution. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on acceptable terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

Based on our research and development plans and our timing expectations related to the progress of our programs, we believe that our existing cash and cash equivalents and development co-funding that we expect to receive under our existing collaborations, will enable us to fund our operating expenses and capital expenditure requirements through the first quarter of 2016, without giving effect to any potential option exercise fees or milestone payments we may receive under our collaboration agreements. We have based these expectations on assumptions that may prove to be wrong, and we could use our capital resources sooner than we expect. Our future capital requirements will depend on many factors, including:

- our remaining collaboration agreements remaining in effect and our ability to obtain research funding and achieve milestones under these agreements;
- the progress and results of our ongoing Phase 1/2 clinical trial of EPZ-6438 and Phase 1 clinical trials of EPZ-5676 and our planned trials of EPZ-6438;
- the number and development requirements of additional indications for EPZ-6438 and EPZ-5676 and other product candidates that we may pursue, including the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for such product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution for any of our product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims; and
- the extent to which we acquire or in-license other products and technologies.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do

not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or 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 equity offerings, debt financings and license and development agreements with collaboration partners. We do not have any committed external source of funds other than research funding under our existing collaborations. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our existing stockholders will be diluted and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common

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stockholders. Debt financing and preferred equity financing, if available, 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 raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs 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 our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Our limited operating history may make it difficult to evaluate the success of our business to date and to assess our future viability.

We commenced active operations in early 2008, and our operations to date have been limited to organizing and staffing our company, business planning, raising capital, developing our technology, identifying potential product candidates, undertaking preclinical studies and, beginning in 2012, conducting clinical trials. All but two of our product candidates are still in preclinical development. We are conducting a Phase 1/2 clinical trial of EPZ-6438 and Phase 1 clinical trials of EPZ-5676 but have not completed enrollment in any of these trials. We have not yet demonstrated our ability to successfully complete any clinical trials, obtain regulatory approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as a young business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We expect our financial condition and operating results to continue to fluctuate significantly from quarter-to-quarter and year-to-year due to a variety of factors, many of which are beyond our control. Accordingly, the results of any quarterly or annual periods should not be relied upon as indications of future operating performance.

We have broad discretion over the use of our cash and cash equivalents and may not use them effectively.

Our management has broad discretion to use our cash and cash equivalents to fund our operations and could spend these funds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use to fund operations, we may invest our cash and cash equivalents in a manner that does not produce income or that loses value.

Risks Related to the Commercialization of Our Product Candidates

Even if any of our product candidates receives marketing approval, it 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 any of our product candidates receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third party payors and others in the medical community. For example, current

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cancer treatments like chemotherapy and radiation therapy are well established in the medical community, and doctors may continue to rely on these treatments. If our 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 our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages compared to alternative treatments;
- our ability to offer our products for sale at competitive prices;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the availability of third party coverage and adequate reimbursement;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our products together with other medications.

If we are unable to establish sales, marketing and distribution capabilities, we may not be successful in commercializing our product candidates if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of pharmaceutical products. To achieve commercial success for any product for which we have obtained marketing approval, we will need to establish a sales and marketing organization.

In the future, we expect to build a focused sales and marketing infrastructure to market some of our product candidates in the United States, if and when they are approved. There are risks involved with establishing our own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. These efforts may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

our inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;

the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future products;

the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and

unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we are unable to establish our own sales, marketing and distribution capabilities and enter into arrangements with third parties to perform these services, our product revenues and our profitability, if any, are likely to be lower than if we were to market, sell and distribute any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute our product candidates or may be unable to do so on terms that are acceptable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

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We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates, and will likely face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of many of the disease indications for which we are developing our product candidates. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Specifically, there are a large number of companies developing or marketing treatments for cancer, including many major pharmaceutical and biotechnology companies. In addition, many companies are developing cancer therapeutics that work by targeting epigenetic mechanisms other than HMTs, and some companies, including Celgene and Eisai, are marketing such treatments. There are also a number of companies that we believe are developing new epigenetic treatments for cancer that target HMTs, including GSK, Novartis AG, Pfizer, Inc. and Genentech, Inc.

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 or are less expensive than any products that we may develop. 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. In addition, our ability to compete may be affected in many cases by insurers or other third party payors seeking to encourage the use of generic products. Generic products are currently on the market for many of the indications that we are pursuing, and additional products are expected to become available on a generic basis over the coming years. If our product candidates achieve marketing approval, we expect that they will be priced at a significant premium over competitive generic products.

Many of the companies against which we are competing or against which we may compete in the future 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.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. 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.

Even if we are able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third party reimbursement practices or healthcare reform initiatives, which could harm our business.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of

the sale price of a drug before it can be marketed. In many countries, the pricing review

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period begins after marketing or product licensing 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 in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

Our ability to commercialize any product candidates successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration 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 medications. Increasingly, third party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Coverage and reimbursement may not be available for any product that we commercialize and, even if these are available, the level of reimbursement may not be satisfactory. Reimbursement may affect the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining and maintaining adequate reimbursement for our products may be difficult. We may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies. If coverage and adequate reimbursement are not available or reimbursement 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 similar regulatory authorities outside of the United States. Moreover, eligibility for reimbursement does not imply that a 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 adequate reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for any product candidates or products that we may develop;

injury to our reputation and significant negative media attention;

withdrawal of clinical trial participants;

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- significant costs to defend any related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop.

We currently hold $5.0 million in product liability insurance coverage in the aggregate, with a per incident limit of $5.0 million, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Risks Related to Our Dependence on Third Parties

Our existing therapeutic collaborations are important to our business, and future collaborations may also be important to us. If we are unable to maintain any of these collaborations, or if these collaborations are not successful, our business could be adversely affected.

We have limited capabilities for drug development and do not yet have any capability for sales, marketing or distribution. Accordingly, we have entered into therapeutic collaborations with other companies that we believe can provide such capabilities, including our collaboration and license agreements with Celgene and GSK. With our reacquisition of rights under our amended and restated collaboration and license agreement, we no longer have access to such capabilities for EPZ-6438. Our collaborations have provided us with important funding for our development programs and product platform and we expect to receive additional funding under these collaborations in the future. Our existing therapeutic collaborations, and any future collaborations we enter into, may pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators strategic focus or available funding, or external factors, such as an acquisition, that may divert resources or create competing priorities;

collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;

collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products and product candidates if the collaborators believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;

product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;

a collaborator may fail to comply with applicable regulatory requirements regarding the development, manufacture, distribution or marketing of a product candidate or product;

a collaborator with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products;

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- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or terminations of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;

- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and

- collaborations may be terminated for the convenience of the collaborator, and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

If our therapeutic collaborations do not result in the successful development and commercialization of products or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. If we do not receive the funding we expect under these agreements, our development of our product platform and product candidates could be delayed and we may need additional resources to develop product candidates and our product platform. All of the risks relating to product development, regulatory approval and commercialization described in this Annual Report on Form 10-K also apply to the activities of our therapeutic collaborators.

Our existing therapeutic collaborations contain restrictions on our engaging in activities that are the subject of the collaboration with third parties for specified periods of time. In addition, under our collaboration agreement with Celgene, during the option period specified in the agreement, which could extend to July 2016, Celgene has the right to exercise its option to acquire a license to additional targets other than DOT1L until the effectiveness of an investigational new drug application, or IND, for an HMT inhibitor directed to such additional target. This option effectively covers all HMT targets, other than EZH2, that are not currently subject to our GSK collaboration. As a result, our ability to enter into collaboration agreements for additional HMT targets is significantly limited until the end of the option period under the Celgene agreement and may continue to be limited after that time depending on how many targets Celgene elects to license, if any. These restrictions may have the effect of preventing us from undertaking development and other efforts that may appear to be attractive to us.

Additionally, subject to its contractual obligations to us, if a collaborator of ours is involved in a business combination, the collaborator might deemphasize or terminate the development or commercialization of any product candidate licensed to it by us. If one of our collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and our perception in the business and financial communities could be adversely affected.

As a component of the amended and restated collaboration agreement with Eisai, we have entered into a transition plan with Eisai under which we will coordinate the transition of clinical and related development and manufacturing responsibilities from Eisai. The transition of these activities, including the time necessary to transfer regulatory sponsorship of our ongoing Phase 1/2 clinical trial; transfer or establish clinical site agreements for our ongoing Phase

1/2 clinical trial; and identify, test and establish manufacturing capabilities with a third party manufacturer, among other things, could cause delays in the clinical progress and development of EPZ-6438.

For some of our product candidates or for some HMT targets, we may in the future determine to collaborate with pharmaceutical and biotechnology companies for development and potential commercialization of therapeutic products. We face significant competition in seeking appropriate collaborators. Our ability to reach a definitive

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agreement for a collaboration 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. If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, 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 fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our product platform and our business may be materially and adversely affected.

Failure of our third party collaborators to successfully commercialize companion diagnostics developed for use with our therapeutic product candidates could harm our ability to commercialize these product candidates.

We do not plan to develop companion diagnostics internally and, as a result, we are dependent on the efforts of our third party collaborators to successfully commercialize companion diagnostics when existing, available technology may not be sufficient to identify patients for treatment with our therapeutic product candidates. Our collaborators:

- may not perform their obligations as expected;
- may encounter production difficulties that could constrain the supply of the companion diagnostics;
- may have difficulties gaining acceptance of the use of the companion diagnostics in the clinical community;
- may not pursue commercialization of any therapeutic product candidates that achieve regulatory approval;
- may elect not to continue or renew commercialization programs based on changes in the collaborators strategic focus or available funding, or external factors such as an acquisition, that divert resources or create competing priorities;
- may not commit sufficient resources to the marketing and distribution of such product or products; and
- may terminate their relationship with us.

If companion diagnostics for use with our therapeutic product candidates fail to gain market acceptance, our ability to derive revenues from sales of our therapeutic product candidates could be harmed. If our collaborators fail to commercialize these companion diagnostics, we may not be able to enter into arrangements with another diagnostic company to obtain supplies of an alternative diagnostic test for use in connection with our therapeutic product candidates or do so on commercially reasonable terms, which could adversely affect and delay the development or

commercialization of our therapeutic product candidates.

We rely, and expect to continue to rely, on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

We currently rely on third party clinical research organizations to conduct our ongoing Phase 1/2 clinical trial of EPZ-6438 and our ongoing Phase 1 clinical trials of EPZ-5676 and do not plan to independently conduct clinical trials of our other product candidates. We expect to continue to rely on third parties, such as clinical research organizations, clinical data management organizations, medical institutions and clinical investigators, to conduct our clinical trials. These agreements might terminate for a variety of reasons, including a failure to perform by the third parties. If we need to enter into alternative arrangements, our product development activities might be delayed.

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Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

We also expect to rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

We contract with third parties for the manufacture of our product candidates for preclinical and clinical testing and expect to continue to do so for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

We do not have any manufacturing facilities and rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates receive marketing approval. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

We also expect to rely on third party manufacturers or third party collaborators for the manufacture of commercial supply of any other product candidates for which our collaborators or we obtain marketing approval.

We may be unable to establish any agreements with third party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third party manufacturers, reliance on third party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and

the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third party manufacturers may not be able to comply with current good manufacturing practices, or cGMP, regulations or similar regulatory requirements outside of the United States. Our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

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Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If our current contract manufacturers cannot perform as agreed, we may be required to replace such manufacturers. Although we believe that there are several potential alternative manufacturers who could manufacture our product candidates, we may incur added costs and delays in identifying and qualifying any such replacement.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain patent protection for our technology and products or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be impaired.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and product candidates.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. 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 at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a

number of significant changes to United States patent law. These changes include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The United States Patent Office recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. 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 and financial condition.

Moreover, we may be subject to a third party preissuance submission of prior art to the U.S. Patent and Trademark Office, or become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Even if our owned and licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. 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. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent s claims narrowly or 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 proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly.

We may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights, that are important or necessary to the development of our products. It may be necessary for us to use the patented or proprietary technology of third

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parties to commercialize our products, in which case we may be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability, and the ability of our collaborators, to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference or derivation proceedings before the U.S. Patent and Trademark Office. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future.

If we are found to infringe a third party s intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. 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 access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

If we fail to comply with our obligations in our intellectual property licenses and funding arrangements with third parties, we could lose rights that are important to our business.

We are party to a license agreement and a research agreement that impose, and we may enter into additional licensing and funding arrangements with third parties that may impose, diligence, development and commercialization timelines, milestone payment, royalty, insurance and other obligations on us. Under our existing licensing and funding agreements, we are obligated to pay royalties on net product sales of product candidates or related technologies to the extent they are covered by the agreement. We also had diligence and development obligations under those agreements that we have satisfied. If we fail to comply with our obligations under current or future license and funding agreements, our counterparties may have the right to terminate these agreements, in which event we might not be able to develop, manufacture or market any product that is covered by these agreements or may face other penalties under the agreements. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or reinstated agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property or technology.

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

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. 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 these

employees or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee s former employer. Litigation may be necessary to defend against these claims.

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In addition, while it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to management.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and product candidates, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. 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 inside 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, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

Risks Related to Regulatory Approval of Our Product Candidates and Other Legal Compliance Matters

If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by the EMA and similar regulatory authorities outside of the United States.

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Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third party CROs to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate s safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. New cancer drugs frequently are indicated only for patient populations that have not responded to an existing therapy or have relapsed. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use of our drug in this way, which could limit sales of the product.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired.

We may not be able to obtain orphan drug exclusivity for our product candidates.

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 product 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.

Generally, if a product with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the EMA or the FDA from approving another marketing application for the same drug for that time period. 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 so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMA 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.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs can be approved for the same condition. 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.

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A fast track designation by the FDA may not actually lead to a faster development or regulatory review or approval process.

We intend to seek fast track designation for some of our product candidates. If a drug is intended for the treatment of a serious or life-threatening condition and the drug demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply for FDA 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 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 withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program.

A breakthrough therapy designation by the FDA for our product candidates may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that our product candidates will receive marketing approval.

We may seek a breakthrough therapy designation for some of our 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 existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs and biologics 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.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. Even if we receive breakthrough therapy designation, the receipt of such 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 one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the products no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Failure to obtain marketing approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In order to market and sell our products in the European Union and many other jurisdictions, we or our third party collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside of the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside of the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We or these third parties may not obtain approvals from regulatory authorities outside of the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside of the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our

products in any market.

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Any product candidate for which we obtain marketing approval could be subject to post-marketing restrictions or withdrawal from the market and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, including the requirement to implement a risk evaluation and mitigation strategy. New cancer drugs frequently are indicated only for patient populations that have not responded to an existing therapy or have relapsed. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use of our drug in this way, which could limit sales of the product.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers communications regarding off-label use, and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act relating to the promotion of prescription drugs may lead to investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters;
- withdrawal of the products from the market;

refusal to approve pending applications or supplements to approved applications that we submit;

recall of products;

fines, restitution or disgorgement of profits or revenues;

suspension or withdrawal of marketing approvals;

refusal to permit the import or export of our products;

product seizure; or

injunctions or the imposition of civil or criminal penalties.

Non-compliance with European Union requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with the European Union s requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

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Our relationships with customers and third party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which, in the event of a violation, could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and third party payors 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 that may constrain the business or financial arrangements and relationships through which we market, sell and distribute any products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;

- the federal False Claims Act imposes criminal and civil penalties, including civil whistleblower or *qui tam* actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to 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, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal Physician Payments Sunshine Act requires applicable manufacturers of covered drugs to report payments and other transfers of value to physicians and teaching hospitals, with data collection beginning in August 2013; and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third party payors, including private insurers.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information

in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

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Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products. 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 reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

More recently, in March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively, the PPACA, 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 the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Among the provisions of the PPACA of importance to our potential product candidates are the following:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices;
- extension of manufacturers Medicaid rebate liability;
- expansion of eligibility criteria for Medicaid programs;

expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;

new requirements to report financial arrangements with physicians and teaching hospitals;

a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and

a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which,

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among other things, reduced Medicare payments to several providers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding.

We expect that the PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA s approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

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

In some countries, particularly the countries of the European Union, 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 is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

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 harm 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 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 for failure to comply with such laws and regulations.

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.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

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Risks Related to Employee Matters and Managing Growth

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the research and development, clinical and business development expertise of Robert J. Gould, Ph.D., our President and Chief Executive Officer, Andrew E. Singer, our Executive Vice President of Finance and Administration and Chief Financial Officer, Robert A. Copeland, Ph.D., our President of Research and Chief Scientific Officer, and Peter T.C. Ho, M.D., Ph.D., our Chief Development Officer, as well as the other principal members of our management, scientific and clinical team. Although we have entered into employment letter agreements with our executive officers, each of them may terminate their employment with us at any time. We do not maintain key person insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies, universities and research institutions for similar personnel. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and, if any of our product candidates receives marketing approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Risks Related to Our Common Stock

Our executive officers and directors and their affiliates, if they choose to act together, have the ability to significantly influence all matters submitted to stockholders for approval.

As of March 6, 2015, our executive officers and directors and their affiliates beneficially own, in the aggregate, shares representing approximately 37.0% of our common stock. As a result, if these stockholders were to choose to act together, they would be able to significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets.

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This concentration of ownership control may:

- delay, defer or prevent a change in control;
- entrench our management and board of directors; or
- impede a merger, consolidation, takeover or other business combination involving us that other stockholders may desire.

Provisions in our corporate charter documents, under Delaware law and in our collaboration agreements could make an acquisition of our company, 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 certificate of incorporation and our bylaws may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, 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. Among other things, these provisions:

- establish a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from our board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;

authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a poison pill that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and

require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal specified provisions of our certificate of incorporation or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Some provisions in our collaboration agreement with Celgene could deter potential buyers of our company from proposing an acquisition and could make us a less attractive target for them. These provisions include the following:

We granted Celgene an exclusive license, for all countries other than the United States, to HMT inhibitors directed to DOT1L and an option, on a target-by-target basis, to exclusively license, for all countries of the world other than the United States, rights to HMT inhibitors directed to any other HMT targets during the option period, excluding the EZH2 HMT and targets covered by our GSK

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collaboration. During the option period specified in the agreement, which could extend until July 2016, Celgene has the right to exercise its option to license non-U.S. rights to additional targets other than DOT1L until the effectiveness of an IND for an HMT inhibitor directed to such additional target. The decision to exercise the options for available targets is in Celgene s sole discretion.

Under our collaboration agreement with Celgene, we granted to Celgene a right of first negotiation with respect to business combination transactions that we may desire to pursue with third parties during the option period, including any extension of this period. During the option period, we are required to notify Celgene if we desire to pursue a specified business combination transaction with a third party prior to negotiating terms with the third party, and after so notifying Celgene, we have agreed not to, directly or indirectly, solicit, initiate or encourage proposals from, discuss or negotiate with, or provide any information to, any third party related to the proposed transaction for a specified period from the date we first notify Celgene of such proposed transaction, or the Celgene negotiation period. If Celgene notifies us that it is interested in entering into the proposed transaction, we have agreed to negotiate in good faith with Celgene during the Celgene negotiation period. Following the Celgene negotiation period, if we have not entered into the proposed transaction with Celgene, or if Celgene does not notify us that it is interested in entering into the proposed transaction, we are free to enter into the proposed transaction with a third party for a period of 225 days following the expiration of the Celgene negotiation period, but we are obligated to re-offer the proposed transaction to Celgene if, during the option term, we propose to enter into the proposed transaction with a third party on terms that, in specified respects, are less favorable to us than the terms last offered by Celgene.

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

Although our common stock is listed on The NASDAQ Global Market, an active trading market for our shares may not be sustained. If an active market for our common stock does not continue, it may be difficult for our stockholders to sell their shares without depressing the market price for the shares or sell their shares at all. Any inactive trading market for our common stock may also impair our ability to raise capital to continue to fund our operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

The price of our common stock has been and may in the future be volatile and fluctuate substantially.

Our stock price has been and may in the future be volatile. From May 31, 2013 to March 6, 2015, the sale price of our common stock as reported on the NASDAQ Global Market ranged from a high of $45.72 per share to a low of $16.51 per share. The stock market in general and the market for smaller biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. 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 our 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 any of our product candidates or clinical development programs;

the results of our efforts to discover, develop, acquire or in-license additional product candidates or products;

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actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;

variations in our financial results or the financial results 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.

We are an emerging growth company, and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and may remain an emerging growth company through 2018. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;

not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor s report providing additional information about the audit and the financial statements;

reduced disclosure obligations regarding executive compensation; and

exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We cannot predict whether investors will find our common stock less attractive if we 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. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of these accounting standards until they would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are

not emerging growth companies.

We will continue to incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to compliance initiatives and corporate governance practices.

As a public company, and particularly after we are no longer an emerging growth company, we will continue to incur significant legal, accounting and other expenses. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The NASDAQ Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to continue to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and make some activities more time-consuming and costly.

We cannot predict or estimate the amount of additional costs we may incur to continue to operate as a public company, nor can we predict the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may

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evolve over time as new guidance is provided by regulatory and governing bodies which could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we are required to furnish a report by our management on our internal control over financial reporting. However, while we remain an emerging growth company, we are not required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we are engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be the sole source of gain for our stockholders.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for our stockholders for the foreseeable future.

If securities or industry analysts do not continue to publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our common stock may be impacted, in part, by the research and reports that securities or industry analysts publish about us or our business. There can be no assurance that analysts will cover us, continue to cover us or provide favorable coverage. If one or more analysts downgrade our stock or change their opinion of our stock, our share price may decline. In addition, if one or more analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our headquarters are located in Cambridge, Massachusetts, where we occupy approximately 42,500 square feet of office and laboratory space. The term of the lease expires November 30, 2017.

Item 3. Legal Proceedings

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

Item 4. Mine Safety Disclosures

Not applicable.

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PART II

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

Our common stock is traded on the NASDAQ Global Market under the symbol EPZM. Trading of our common stock commenced on May 31, 2013, following the completion of our initial public offering. The following table sets forth the high and low sale prices per share of our common stock, as reported on the NASDAQ Global Market, for the periods indicated:

	Market Price	
	High	**Low**
Year ended December 31, 2014:		
Fourth quarter	$ 30.26	$ 16.51
Third quarter	$ 40.98	$ 25.10
Second quarter	$ 31.35	$ 18.75
First quarter	$ 41.23	$ 19.76
Year ended December 31, 2013:		
Fourth quarter	$ 42.71	$ 18.10
Third quarter	$ 45.72	$ 26.06
Second quarter (from May 31, 2013)	$ 30.86	$ 18.60

As of March 6, 2015, the number of holders of record of our common stock was 30. This number does not include beneficial owners whose shares are held in street name.

We did not have any shares available to be repurchased under any announced or approved repurchase programs or authorizations as of December 31, 2014.

Dividends

We have never declared or paid cash dividends on our capital stock. We intend to retain all of our future earnings, if any, to finance the growth and development of our business. We do not intend to pay cash dividends to our stockholders in the foreseeable future.

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Stock Performance Graph

The following graph shows a comparison from May 31, 2013, the first date that shares of our common stock were publicly traded, through December 31, 2014 of the cumulative total return on an assumed investment of $100.00 in cash in our common stock, the NASDAQ Composite Index and the NASDAQ Biotechnology Index. Such returns are based on historical results and are not intended to suggest future performance. Data for the NASDAQ Composite Index and NASDAQ Biotechnology Index assume reinvestment of dividends.

Comparison of Cumulative Total Return

Among Epizyme, Inc., the NASDAQ Composite Index and the NASDAQ Biotechnology Index

The performance graph in this Item 5 is not deemed to be soliciting material or to be filed with the SEC for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed incorporated by reference into any filing of Epizyme, Inc. under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent we specifically incorporate it by reference into such a filing.

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Item 6. Selected Financial Data

The following selected financial data has been derived from our consolidated financial statements. The information set forth below should be read in conjunction with Item 7. *Management s Discussion and Analysis of Financial Condition and Results of Operations* and with our consolidated financial statements and notes thereto included elsewhere in this document.

	Year Ended December 31,			
	2014	2013	2012	2011
	(In thousands, except per share data)			
Consolidated Statements of Operations Data:				
Collaboration revenue	$ 41,411	$ 68,482	$ 45,222	$ 6,944
Operating expenses:				
Research and development	75,595	57,567	38,482	22,911
General and administrative	20,866	14,042	7,508	5,000
Total operating expenses	96,461	71,609	45,990	27,911
Operating loss	(55,050)	(3,127)	(768)	(20,967)
Other income (expense), net	154	(7)	67	10
Income tax expense	109	349	1	
Net loss	$ (55,005)	$ (3,483)	$ (702)	$ (20,957)
Accretion of redeemable convertible preferred stock to redemption value		264	486	45
Loss allocable to common stockholders	$ (55,005)	$ (3,747)	$ (1,188)	$ (21,002)
Basic and diluted loss per share allocable to common stockholders	$ (1.67)	$ (0.22)	$ (0.72)	$ (14.65)
Basic and diluted weighted average shares outstanding	33,027	17,049	1,645	1,434

	As of December 31,	
	2014	2013
	(In thousands)	
Consolidated Balance Sheets Data :		
Cash and cash equivalents	$ 190,095	$ 123,564
Total assets	199,203	162,988
Deferred revenue	23,151	46,872
Total stockholders equity	160,282	104,313

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

Our management s discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements included in this Annual Report on Form 10-K, which have been prepared by us in accordance with accounting principles generally accepted in the United States of America, or GAAP, and with Regulation S-X promulgated under the Securities Exchange Act of 1934, as amended. This discussion and analysis should be read in conjunction with these consolidated financial statements and the notes thereto included elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in Part I, Item 1A. *Risk Factors* of this Annual Report on Form 10-K, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical stage biopharmaceutical company that discovers, develops and plans to commercialize novel epigenetic therapies for cancer patients. We have built a proprietary product platform that we use to create small molecule inhibitors of a 96-member class of enzymes known as histone methyltransferases, or HMTs. Genetic alterations can result in changes to the activity of HMTs, making them oncogenic. Our therapeutic strategy is to treat the underlying causes of specific cancers by blocking the misregulated activity of oncogenic HMTs.

We are a leader in the translation of the science of epigenetics into first-in-class, novel epigenetic therapies for cancer patients and currently have two HMT inhibitors in clinical development for the treatment of patients with specific cancers. We believe we are the first company to conduct clinical trials of HMT inhibitors. We are conducting a Phase 1/2 clinical trial of our most advanced product candidate, EPZ-6438, an inhibitor targeting the EZH2 HMT, for the treatment of non-Hodgkin lymphoma and solid tumors, including INI1-deficient tumors such as synovial sarcoma and malignant rhabdoid tumors, or MRT. We are also conducting two Phase 1 clinical trials of our second most advanced product candidate, EPZ-5676, an inhibitor targeting the DOT1L HMT, for the treatment of acute leukemias with genetic alterations of the *MLL* gene, referred to as MLL-r.

In 2015, we plan to execute on the following clinical plans:

- Continue dosing patients who remain on study in the dose escalation cohorts of our ongoing Phase 1/2 clinical trial of EPZ-6438 in adult patients with advanced solid tumors or with relapsed or refractory B-cell lymphoma;

- Complete enrollment in two ongoing six-patient expansion cohorts in our ongoing Phase 1/2 clinical trial of EPZ-6438 for the treatment of non-Hodgkin lymphoma and solid tumor patients, one at 800 mg and one at 1600 mg;

- Initiate the Phase 2 portion of our Phase 1/2 clinical trial of EPZ-6438 in adult non-Hodgkin B-cell lymphoma patients in which patients will be prospectively stratified based on cell of origin and EZH2 mutational status into one of five arms;

Initiate a Phase 2 clinical trial of EPZ-6438 in adult patients with INI1-deficient tumors such as synovial sarcoma;

Initiate a Phase 1 clinical trial of EPZ-6438 in pediatric patients with INI1-deficient tumors such as malignant rhabdoid tumors;

Complete enrollment in an ongoing 20 patient expansion cohort in our ongoing Phase 1 clinical trial of EPZ-5676 in adult MLL-r patients at 54 mg/m^2/day; and

Complete enrollment in the ongoing Phase 1 clinical trial of EPZ-5676 in MLL-r pediatric patients.

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In addition to our clinical programs, we also have a pipeline of HMT inhibitors in preclinical development that target our other prioritized HMTs in the HMTome. These programs are directed to genetically defined cancers, including both hematological and solid tumors, and include the preclinical development of three specified HMT inhibitors which we have licensed to GSK. We also have active drug discovery programs for other HMTs that we have prioritized.

In March 2015, we entered into an amended and restated collaboration and license agreement with Eisai under which we reacquired worldwide rights, excluding Japan, to our EZH2 program, including EPZ-6438. Under the original collaboration and license agreement, we had granted Eisai an exclusive worldwide license to our EZH2 program, including EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States. Under the amended and restated collaboration and license agreement, we will be responsible for global development, manufacturing and commercialization outside of Japan of EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. In connection with the amended and restated agreement, we agreed to pay Eisai an upfront payment of $40.0 million, specified milestone payments based on our development and commercialization of EZH2 products outside of Japan and royalties on net sales of EZH2 products outside of Japan.

In addition to our collaborations with Eisai and GSK, we are also a party to a collaboration agreement with Celgene. These collaborations have provided us with $188.7 million in non-equity funding as of December 31, 2014. We retain worldwide commercialization rights, excluding Japan, under the amended Eisai collaboration, and commercialization rights in the United States under the Celgene collaboration.

We design, manage and evaluate the results of all of our research and development plans centrally and have engaged a multinational network of contract research organizations, or CROs, to execute on specific phases of our research and development programs. By employing this network of CROs, we seek to manage multiple development programs while maintaining flexibility in our cost structure.

We commenced active operations in early 2008, and our operations to date have been limited to organizing and staffing our company, business planning, raising capital, developing our technology, identifying potential product candidates, undertaking preclinical studies and, beginning in 2012, conducting clinical trials. To date, we have financed our operations primarily through our public offerings, private placements of our preferred stock and funding received from collaboration and license agreements. All of our revenue to date has been collaboration revenue. Since our inception and through December 31, 2014, we have raised an aggregate of $448.5 million to fund our operations, of which $188.7 million was non-equity funding through our collaboration agreements, $183.8 million was from our public offerings and $76.0 million was from the sale of preferred stock. In addition, as of December 31, 2014, we were entitled to receive $2.1 million for research and development services revenue earned and global development co-funding.

Since inception, we have incurred significant operating losses. Our net loss was $55.0 million for the year ended December 31, 2014. As of December 31, 2014, we had an accumulated deficit of $111.1 million. We expect to continue to incur significant expenses and operating losses over the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially as we assume control of the EZH2 program from Eisai, pay the upfront and any milestone payments provided for and achieved under the amended and restated collaboration and license agreement and assume responsibility for the funding of the program moving forward, including our ongoing Phase 1/2 clinical trial of EPZ-6438 in adult patients with advanced solid tumors or with relapsed or refractory B-cell lymphoma; initiate our planned Phase 1 clinical trial of EPZ-6438 in pediatric patients with INI1-deficient tumors, such as MRT; initiate our planned Phase 2 clinical trial

of EPZ-6438 in patients with INI1-deficient tumors, such as synovial sarcoma; continue our Phase 1 clinical trials of EPZ-5676 in MLL-r adult and pediatric patients; continue the research and development of our other product candidates; seek to discover and develop additional product

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candidates; seek regulatory approvals for our product candidates that successfully complete clinical trials; establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize any products for which we may obtain regulatory approval; maintain, expand and protect our intellectual property portfolio; hire additional clinical, quality control and scientific personnel; and add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

Collaborations

The key terms of our primary collaborations are as follows:

Celgene

In April 2012, we entered into a collaboration and license agreement with Celgene to discover, develop and commercialize, in all countries other than the United States, small molecule HMT inhibitors targeting DOT1L, including EPZ-5676, and any other HMT targets from our product platform, excluding the EZH2 HMT and targets covered by our GSK collaboration, which we refer to as the available targets.

Agreement Structure

Under the terms of the agreement, we received a $65.0 million upfront payment and $25.0 million from the sale of our series C preferred stock to an affiliate of Celgene, of which $3.0 million was considered a premium and included as collaboration arrangement consideration for a total upfront payment of $68.0 million. In addition, we recorded a $25.0 million clinical development milestone payment and $5.8 million of global development co-funding through December 31, 2014. We are also eligible to earn up to $35.0 million in additional clinical development milestone payments and up to $100.0 million in regulatory milestone payments related to DOT1L as well as up to $65.0 million in payments, including a combination of clinical development milestone payments and an option exercise fee, and up to $100.0 million in regulatory milestone payments for each available target as to which Celgene exercises its option during an initial option period ending in July 2015. Celgene has the right to extend the option period until July 2016 by making a significant option extension payment. As to DOT1L and each available target as to which Celgene may exercise its option, we retain all product rights in the United States and are eligible to receive royalties for each target at defined percentages ranging from the mid-single digits to the mid-teens on net product sales outside of the United States, subject to reductions in specified circumstances. Due to the uncertainty of pharmaceutical development and the high historical failure rates generally associated with pharmaceutical development, we may not receive any milestone or royalty payments from Celgene. The next potential milestone payment that we might be entitled to receive under this agreement is $35.0 million for the initiation of a pivotal clinical trial, as defined in the agreement, for our DOT1L inhibitor.

We are obligated to conduct and solely fund research and development costs of the Phase 1 clinical trials for EPZ-5676 and through the effectiveness of the first investigational new drug application for an HMT inhibitor directed to each available target selected by Celgene, after which Celgene and we will equally co-fund global development and each party will solely fund territory-specific development costs for its territory.

Collaboration Revenue

Through December 31, 2014, in addition to amounts allocated to Celgene s purchase of shares of our series C preferred stock, we recorded a total of $98.8 million in cash and accounts receivable under the Celgene agreement, including a

$3.0 million implied premium on Celgene s purchase of our series C preferred stock. Of this amount, we recognized $9.6 million, $37.8 million and $23.9 million of collaboration revenue in the consolidated statements of operations and comprehensive loss during the

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years ended December 31, 2014, 2013 and 2012, respectively, and $3.9 million and $1.9 million of global development co-funding as a reduction to research and development expense during the years ended December 31, 2014 and 2013, respectively. As of December 31, 2014, we had deferred revenue of $21.7 million related to this agreement.

GSK

In January 2011, we entered into a collaboration and license agreement with GSK to discover, develop and commercialize novel small molecule HMT inhibitors directed to available targets from our product platform. Under the terms of the agreement, we granted GSK exclusive worldwide license rights to HMT inhibitors directed to three targets. In March 2014, we and GSK amended certain terms of this agreement for the third target, revising the license terms with respect to candidate compounds and amending the corresponding financial terms, including reallocating milestone payments and increasing royalty rates as to the third target. Additionally, as part of the research collaboration provided for in the agreement, we agreed to provide research and development services related to the licensed targets pursuant to agreed upon research plans during a research term that ended January 8, 2015, or earlier if selection of a development candidate occurred.

Agreement Structure

Under the agreement, we recorded a $20.0 million upfront payment, a $3.0 million payment upon the execution of the March 2014 agreement amendment, $6.0 million of fixed research funding, $15.0 million of preclinical research and development milestone payments and $9.0 million for research and development services through December 31, 2014. We are eligible to receive up to $18.0 million in additional preclinical research and development milestone payments, up to $109.0 million in clinical development milestone payments, up to $275.0 million in regulatory milestone payments and up to $218.0 million in sales-based milestone payments. In addition, GSK is required to pay us royalties at percentages from the mid-single digits to the low double-digits, on a licensed product-by-licensed product basis, on worldwide net product sales, subject to reductions in specified circumstances. Due to the uncertainty of pharmaceutical development and the high historical failure rates generally associated with pharmaceutical development, we may not receive any additional milestone payments or royalty payments from GSK. The next potential milestone payment that we might be entitled to receive under this agreement is a preclinical research and development milestone. However, due to the varying stages of development of each licensed target, we are not able to determine the next milestone that might be achieved, if any.

For each selected target in the collaboration, we were primarily responsible for research until the earlier of selection of a development candidate for the target or January 8, 2015, and GSK is solely responsible for subsequent development and commercialization. GSK provided a fixed amount of research funding during the second and third years of the research term and was obligated to provide research funding equal to 100.0% of research and development costs, subject to specified limitations, for research activities we conducted in the fourth year of the research term.

Collaboration Revenue

Through December 31, 2014, we recorded a total of $53.0 million in cash and accounts receivable under the GSK agreement. During the years ended December 31, 2014, 2013 and 2012, we recognized $25.5 million, $16.4 million and $9.7 million of collaboration revenue, respectively, under this agreement. As of December 31, 2014, we had deferred revenue of $1.4 million related to this agreement.

Eisai

In March 2015, we entered into an amended and restated collaboration and license agreement with Eisai, under which we reacquired worldwide rights, excluding Japan, to our EZH2 program, including EPZ-6438.

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Under the amended and restated collaboration and license agreement, we will be responsible for global development, manufacturing and commercialization outside of Japan of EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. Under the original collaboration and license agreement, we had granted Eisai an exclusive worldwide license to our small molecule HMT inhibitors directed to EZH2, including EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States.

Agreement Structure

Under the terms of the original agreement, we recorded a $3.0 million upfront payment, $7.0 million in preclinical research and development milestone payments, a $6.0 million clinical development milestone and $22.7 million for research and development services through December 31, 2014, for total consideration received from Eisai of $38.7 million. We were also eligible to earn up to a total of $195.0 million in clinical development, regulatory and sales-based milestone payments and to receive royalties on product sales. Upon the execution of the amended and restated collaboration agreement, we agreed to pay Eisai a $40.0 million upfront payment. We also agreed to pay Eisai up to $20.0 million in clinical development milestone payments, up to $50.0 million in regulatory milestone payments and royalties at a percentage in the mid-teens on worldwide net sales of any EZH2 product, excluding net sales in Japan. We are eligible to receive from Eisai royalties at a percentage in the mid-teens on net sales of any EZH2 product in Japan.

Under the original agreement, Eisai was solely responsible for funding all research, development and commercialization costs for licensed compounds. Under the amended agreement, we will be solely responsible for funding global development, manufacturing and commercialization costs for EZH2 compounds outside of Japan, and Eisai will be solely responsible for funding Japan-specific development and commercialization costs for EZH2 compounds. In connection with the amendment and restatement of our collaboration and license agreement with Eisai, we and Eisai have agreed upon a transition to us of ongoing development and manufacturing activities being conducted by or on behalf of Eisai.

Collaboration Revenue

Through December 31, 2014, under the terms of the original agreement, we had recorded a total of $38.7 million in cash and accounts receivable under this agreement. During the years ended December 31, 2014, 2013 and 2012, we recognized $6.3 million, $14.3 million and $11.5 million of collaboration revenue, respectively, under this agreement. As of December 31, 2014, we had no remaining deferred revenue related to this agreement.

Results of Operations for the Years Ended December 31, 2014, 2013 and 2012

Collaboration Revenue

The following is a comparison of collaboration revenue for the years ended December 31, 2014, 2013 and 2012:

	Year Ended December 31,		
	2014	2013	2012
	(In millions)		
Collaboration revenue	$ 41.4	$ 68.5	$ 45.2

Our revenue consists of collaboration revenue, including amounts recognized from deferred revenue related to upfront payments for licenses or options to obtain licenses in the future, research and development services revenue earned and milestone payments earned under collaboration and license agreements with our collaboration partners.

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During the year ended December 31, 2014, collaboration revenue consisted of $22.7 million recognized from deferred revenue related to upfront payments for licenses, $3.0 million in milestone revenue and $15.7 million in research and development funding. This revenue compares to $24.3 million recognized from deferred revenue related to upfront payments for licenses, $35.0 million in milestone revenue and $9.2 million in research and development funding for the year ended December 31, 2013 and to $30.2 million recognized from deferred revenue related to upfront payments for licenses, $8.0 million in milestone revenue and $7.0 million in research and development funding recognized in the year ended December 31, 2012, collectively representing a $27.1 million, or 40%, decrease in collaboration revenue in 2014 compared to 2013 and a $23.3 million, or 51%, increase in collaboration revenue in 2013 compared to 2012.

Collaboration revenue recognized from deferred revenue related to upfront payments for licenses in the year ended December 31, 2014 comprised $9.6 million under our Celgene agreement, $1.6 million under our Eisai agreement and $11.5 million under our GSK agreement as compared to $12.8 million under our Celgene agreement, $1.6 million under our Eisai agreement and $9.9 million under our GSK agreement in 2013 and $23.9 million under our Celgene agreement, $1.6 million under our Eisai agreement and $4.6 million under our GSK agreement in 2012. Milestone revenue in the year ended December 31, 2014 represents $3.0 million in preclinical research and development milestones achieved under our GSK agreement as compared to a $25.0 million clinical development milestone achieved under our Celgene agreement, a $6.0 million clinical development milestone achieved under our Eisai agreement and a $4.0 million preclinical research and development milestone achieved under our GSK agreement in 2013 and a $4.0 million preclinical research and development milestone achieved under our Eisai agreement and $4.0 million in preclinical research and development milestones achieved under our GSK agreement in 2012. Collaboration revenue recognized for research and development services in the year ended December 31, 2014 comprised $4.7 million under our Eisai agreement and $11.0 million under our GSK agreement as compared to $6.7 million under our Eisai agreement and $2.5 million under our GSK agreement in 2013 and $5.9 million under our Eisai agreement and $1.1 million under our GSK agreement in 2012.

Following the execution of the amended and restated collaboration and license agreement with Eisai, we do not expect to recognize any further amounts from Eisai, except for potential royalties on EZH2 product sales in Japan that we may receive in the future.

Research and Development

The following is a comparison of research and development expenses for the years ended December 31, 2014, 2013 and 2012:

	Year Ended December 31,		
	2014	2013	2012
	(In millions)		
Research and development	$ 75.6	$ 57.6	$ 38.5

Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits for full-time research and development employees, facilities expenses, overhead expenses, clinical trial and related clinical manufacturing expenses, fees paid to third party clinical research organizations, or CROs, and other outside expenses. As we advance our product platform, we are conducting research on several prioritized HMT targets. Our research and development team is organized such that the strategy, design, management and evaluation of results of all of our research and development plans is accomplished internally while some of our research and development activities are executed using our multinational network of CROs. In the early

phases of development, our research and development costs are often devoted to enhancing our product platform and are not necessarily allocable to specific targets. In circumstances where our collaboration and license agreements provide for equally co-funded global development under joint risk sharing collaborations, amounts received from collaboration partners for such co-funding are recorded as a reduction to research and development expense.

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The following table illustrates the components of our research and development expenses:

Product Program (Phase as of the latest period end)	Year Ended December 31, 2014	2013	2012
		(In millions)	
External research and development expenses:			
EPZ-6438 (Phase 1/2) and related EZH2 programs	$ 3.8	$ 3.9	$ 3.5
EPZ-5676 (Phase 1) and related DOT1L programs	15.2	13.3	8.0
Discovery and preclinical stage product programs, collectively	31.5	22.4	12.9
Internal research and development expenses	25.1	18.0	14.1
Total research and development expenses	$ 75.6	$ 57.6	$ 38.5

During the years ended December 31, 2014 and 2013, our total research and development expenses increased by $18.0 million, or 31.3%, and $19.1 million, or 49.6%, respectively, compared to the prior years, primarily due to the expansion of our product platform and the advancement of our preclinical pipeline programs. Research and development expenses for EPZ-5676 for the years ended December 31, 2014 and 2013 are net of $3.9 million and $1.9 million, respectively, of global development co-funding from Celgene.

Most of our research and development costs have been external costs, which we began tracking on a program-by-program basis in the first quarter of 2010. Our internal research and development costs are primarily compensation expenses for our full-time research and development employees. We do not track internal research and development costs on a program-by-program basis. However, by employing a multinational network of CROs, our employees are able to dedicate significant amounts of their time to the expansion and development of our product platform while managing the research performed by our CROs. Our internal research and development expenses increased by $7.1 million in 2014 as compared to 2013 and by $3.9 million in 2013 as compared to 2012 as the number of our research and development employees grew from 47 employees as of December 31, 2012 to 56 employees as of December 31, 2013 and to 63 employees as of December 31, 2014.

During the years ended December 31, 2014 and 2013, external research and development expenses for EPZ-6438 and related EZH2 programs focused on the EPZ-6438 Phase 1/2 clinical trial with expenses of $3.8 million and $3.9 million. During the year ended December 31, 2012, external research and development spending for EPZ-6438 and related EZH2 programs focused on progressing our EPZ-6438 product candidate into preclinical phases, with expenses of $3.5 million. During the years ended December 31, 2014 and 2013, external research and development expenses for EPZ-5676 and related DOT1L programs focused on the advancement of the EPZ-5676 Phase 1 clinical trial, with expenses increasing to $15.2 million and $13.3 million, respectively, including $3.9 million and $1.9 million of global development co-funding from Celgene, respectively, which is recorded as a reduction to research and development expense. During the year ended December 31, 2012, external research and development spending for EPZ-5676 and related DOT1L programs focused on the advancement of EPZ-5676, with expenses increasing to $8.0 million in the year ended December 31, 2012, principally due to spending on preclinical studies. External research and development spending for discovery and preclinical stage product programs, including the three target programs partnered with GSK, increased from $12.9 million for the year ended December 31, 2012 to $22.4 million for the year ended December 31, 2013 and to $31.5 million for the year ended December 31, 2014, as we advanced the research and development of these programs.

External research and development spending from January 1, 2010 through December 31, 2014 was $47.7 million for EPZ-5676 and related DOT1L programs and $16.6 million for EPZ-6438 and related EZH2 programs. We did not maintain program-specific external cost information prior to January 1, 2010.

We expect that research and development expenses will increase significantly in 2015, as we assume responsibility for funding of the planned clinical trials of EPZ-6438.

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General and Administrative

The following is a comparison of general and administrative expenses for the years ended December 31, 2014, 2013 and 2012:

	Year Ended December 31,		
	2014	2013	2012
	(In millions)		
General and administrative	$ 20.9	$ 14.0	$ 7.5

General and administrative expenses consist primarily of salaries and related benefits, including stock-based compensation, related to our executive, finance, intellectual property, business development and support functions. Other general and administrative expenses include allocated facility-related costs not otherwise included in research and development expenses, travel expenses and professional fees for auditing, tax and legal services, including intellectual property-related legal services.

For the year ended December 31, 2014, our general and administrative expenses increased by $6.9 million, or 49%, compared to the year ended December 31, 2013, primarily related to additional professional fees, insurance and other costs associated with public company operation as well as increased stock-based compensation expense, intellectual property-related legal services and other costs to support our growing organization.

For the year ended December 31, 2013, our general and administrative expenses increased by $6.5 million, or 87%, compared to the year ended December 31, 2012, primarily related to additional professional fees, insurance and other costs associated with public company operation as well as increased stock-based compensation expense and other costs to support our growing organization, as we grew from 15 general and administrative employees as of December 31, 2012 to 18 general and administrative employees as of December 31, 2013.

We expect that general and administrative expenses will be relatively consistent in 2015, as compared to 2014.

Other Income (Expense), Net

Other income (expense), net consists of interest income earned on our cash equivalents, offset by interest and other expense. Other income, net recorded in the year ended December 31, 2014 primarily reflects interest income earned on our cash equivalents and other income recorded from tax incentive award received in 2013. Other expense, net recorded in the year ended December 31, 2013 primarily reflects the recognition of interest expense on a contract termination obligation that we incurred in the second quarter of 2012 and paid in full in the second quarter of 2013. Other income, net recorded in the year ended December 31, 2012 primarily reflects interest income earned on our cash equivalents, partially offset by the recognition of interest expense on the contract termination obligation that we incurred in the second quarter of 2012.

Income Tax Expense

Income tax expense for the year ended December 31, 2014 reflects adjustments identified in 2014 related to the year ended December 31, 2013 in the course of preparing the 2013 income tax returns. Income tax expense for the year ended December 31, 2013 consisted primarily of current federal tax expense, as we were able to utilize all of our federal and state net operating loss carryforwards to offset the majority of our taxable income for the year. Income tax expense for the year ended December 31, 2012 consisted solely of current state tax expense, as we were able to utilize

federal net operating loss carryforwards to fully offset federal taxable income for the year.

Accretion of Preferred Stock

Our redeemable convertible preferred stock automatically converted into common stock upon the closing of our initial public offering in June 2013. Our preferred stock was redeemable beginning in 2017 at its original issue prices per share plus any declared but unpaid dividends upon a specified vote of the preferred stockholders.

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Accretion of preferred stock reflected the periodic accretion of issuance costs and premiums on each series of preferred stock, where applicable, to their respective redemption values. We recorded $0.3 million of accretion in the year ended December 31, 2013, until the conversion into common stock, as well as $0.5 million of accretion in the year ended December 31, 2012. As a result of this conversion, as of December 31, 2013, we did not have any preferred stock outstanding and will not record any additional accretion of preferred stock related to the shares of redeemable convertible preferred stock previously issued.

Liquidity and Capital Resources

In February 2014, we completed a public offering of 3,673,901 shares of our common stock, at a price of $29.25 per share. We received net proceeds before expenses from this offering of $101.3 million after deducting underwriting discounts and commissions paid by us.

Since our inception and through December 31, 2014, we have raised an aggregate of $448.5 million to fund our operations, of which $188.7 million was non-equity funding through our collaboration agreements, $183.8 million was from the sale of common stock in our public offerings and $76.0 million was from the sale of preferred stock. In addition, as of December 31, 2014, we were entitled to receive $2.1 million for research and development services revenue earned and global development co-funding. As of December 31, 2014, we had $190.1 million in cash and cash equivalents.

In addition to our existing cash and cash equivalents, we receive research and development funding and are eligible to earn a significant amount of option exercise and milestone payments under our collaboration agreements. Our ability to earn these payments and the timing of earning these payments is dependent upon the outcome of our research and development activities and is uncertain at this time. Our rights to payments under our collaboration agreements are our only committed external source of funds.

Funding Requirements

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third party clinical research and development services, laboratory and related supplies, clinical costs, our potential future milestone payment obligations to Eisai under the amended Eisai collaboration agreement, legal and other regulatory expenses and general overhead costs. We believe our multinational network of CROs provides us with flexibility in managing our spending and limits our cost commitments at any point in time.

Because our product candidates are in various stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability. Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity or debt financings and collaboration arrangements. Except for any obligations of our collaborators to reimburse us for research and development expenses or to make option exercise, milestone or royalty payments under our agreements with them, we do not have any committed external sources of liquidity. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest 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. Our ability to enter into collaboration agreements for additional HMT targets is significantly limited until the end of the option period under the Celgene agreement and may continue to be limited after the end of the option period depending on how many other HMT targets Celgene elects to license, if any. 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 any additional funds that may be needed through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

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Outlook

Based on our research and development plans and our timing expectations related to the progress of our programs, we believe that our existing cash and cash equivalents will enable us to fund our operating expenses and capital expenditure requirements through the first quarter of 2016, without giving effect to any potential option exercise fees or milestone payments we may receive under our collaboration agreements. We have based this estimate on assumptions that may prove to be wrong, particularly as the process of testing drug candidates in clinical trials is costly and the timing of progress in these trials is uncertain. As a result, we could use our capital resources sooner than we expect.

Cash Flows

The following is a summary of cash flows for the years ended December 31, 2014, 2013 and 2012:

	Year Ended December 31,		
	2014	2013	2012
		(In millions)	
Net cash (used in) provided by operating activities	$ (35.4)	$ (53.7)	$ 44.2
Net cash used in investing activities	(2.2)	(0.6)	(1.4)
Net cash provided by financing activities	104.1	79.9	21.9

Net Cash (Used in) Provided by Operating Activities

Net cash used in operating activities was $35.4 million during the year ended December 31, 2014 compared to $53.7 million during the year ended December 31, 2013. The decrease in net cash used in operating activities reflects the receipt in 2014 of $53.2 million in non-equity funding under our collaborations, including $32.0 million in milestone payments, $3.0 million in upfront payments and $18.2 million in research reimbursements, during the year ended December 31, 2014, offset by spend in our research and development and general and administrative activities during the year ended December 31, 2014, as compared to the receipt in 2013 of $16.0 million in non-equity funding under our collaborations. Net cash used in operating activities was $53.7 million during the year ended December 31, 2013 compared to net cash provided by operating activities of $44.2 million during the year ended December 31, 2012. The change from net cash provided by operating activities in 2012 to net cash used in operating activities during the year ended December 31, 2013 reflects a $68.0 million upfront payment received from Celgene and allocated to our collaboration agreement in April 2012, as well as increased spending in 2013.

Net Cash Used in Investing Activities

Net cash used in investing activities relates to the purchase of property and equipment. Purchases of property and equipment in 2014 consisted principally of purchases to support expansion of and improvements in our technology infrastructure, whereas property and equipment purchases in 2013 were primarily maintenance capital. Purchases of property and equipment in 2012 consisted primarily of purchases of laboratory equipment, due to the growth of our research and development activities, and office furniture and equipment, related to our move to a larger office and laboratory facility in November 2012.

Net Cash Provided by Financing Activities

Net cash provided by financing activities of $104.1 million during the year ended December 31, 2014 primarily reflects net cash received from our February 2014 public offering of our common stock as well as cash received from stock option exercises and the purchase of shares under our employee stock purchase plan. Net cash provided by financing activities of $79.9 million during the year ended December 31, 2013 primarily reflects cash received from our initial public offering. Net cash provided by financing activities during the year ended December 31, 2012 primarily related to the sale of 9.8 million shares of series C preferred stock to an affiliate of Celgene for proceeds of $25.0 million, of which $3.0 million was considered to be a premium and was allocated to the deliverables under the collaboration agreement, resulting in $22.0 million being allocated to the series C preferred stock.

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Contractual Obligations and Contingent Liabilities

The following summarizes our significant contractual obligations as of December 31, 2014:

Contractual Obligations	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years
			(In thousands)		
Real estate leases	$ 8,061	$ 2,687	$ 5,374	$	$
Equipment leases	1,995	665	1,330		
Total obligations	$ 10,056	$ 3,352	$ 6,704	$	$

Leases. Real estate leases represent future minimum lease payments under non-cancelable operating leases in effect as of December 31, 2014, including the remaining payments under our operating lease for our current office and laboratory facility in Cambridge, Massachusetts, which was amended in September 2013 to include additional office space. Equipment leases include capital and operating leases relating to IT equipment and related storage space. The minimum lease payments above do not include common area maintenance charges or real estate taxes to the extent applicable.

In March 2015, we entered into an amended and restated collaboration and license agreement with Eisai under which we reacquired worldwide rights, excluding Japan, to our EZH2 program, including EPZ-6438. Under the amended and restated collaboration and license agreement, we agreed to be responsible for global development, manufacturing and commercialization outside of Japan for EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. In connection with this agreement, we agreed to pay Eisai an upfront payment of $40.0 million, specified milestone payments based on our development and commercialization of EZH2 products outside of Japan and royalties on net sales of EZH2 products outside of Japan. We also agreed to be responsible for $8.5 million of the remaining milestone payments payable under the Roche companion diagnostic agreement.

The contractual obligations table does not include:

Any potential future milestones or royalties payable to Eisai under the amended collaboration and license agreement.

Any of the remaining $8.5 million in potential future milestones payable to Roche under the companion diagnostic agreement, the obligation of which to pay we assumed in March 2015.

Any potential future milestone or royalty payments we may be required to make under our license agreement with the University of North Carolina, under which we were granted an exclusive worldwide license to specified patent rights and a non-exclusive worldwide license to specified know-how and biological materials.

Any potential future milestone or royalty payments we may be required to make under a non-exclusive license to patent related to an excipient in the formulation of a therapeutic product candidate due to the uncertainty of the occurrence of the events requiring payment under these agreements.

Critical Accounting Policies and Use of Estimates

Our management s discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the balance sheets and the reported amounts of collaboration revenue and expenses during the reporting periods. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances at the time such

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estimates are made. Actual results and outcomes may differ materially from our estimates, judgments and assumptions. We periodically review our estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates are reflected in the consolidated financial statements prospectively from the date of the change in estimate.

We define our critical accounting policies as those accounting principles generally accepted in the United States of America that require us to make subjective estimates and judgments about matters that are uncertain and are likely to have a material impact on our financial condition and results of operations as well as the specific manner in which we apply those principles. We believe the critical accounting policies used in the preparation of our financial statements which require significant estimates and judgments are as follows:

Revenue Recognition

We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; our price to the customer is fixed or determinable and collectability is reasonably assured. The terms of our collaboration and license agreements typically contain multiple deliverables, which may include licenses, or options to obtain licenses, to compounds directed to specific HMT targets, referred to as exclusive licenses, as well as research and development activities to be performed by us on behalf of the collaboration partner related to the licensed HMT targets. Payments that we may receive under these agreements include non-refundable license fees, option fees, extension fees, payments for research activities, payments based upon the achievement of specified milestones and royalties on any resulting net product sales.

Multiple-Element Revenue Arrangements. Our collaborations primarily represent multiple-element revenue arrangements. To account for these transactions, we determine the elements, or deliverables, included in the arrangement and allocate arrangement consideration to the various elements based on each element s relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involve significant judgment, including consideration as to whether each delivered element has standalone value to the collaborator. We determine the estimated selling price for deliverables within each agreement using vendor-specific objective evidence of selling price, if available, or third party evidence of selling price if vendor-specific objective evidence is not available, or our best estimate of selling price, if neither vendor-specific objective evidence nor third party evidence is available. Determining the best estimate of selling price for a deliverable requires significant judgment. We typically use our best estimate of selling price to estimate the selling price for licenses to our proprietary technology, since we do not have vendor-specific objective evidence or third party evidence of selling price for these deliverables. In those circumstances where we apply our best estimate of selling price to determine the estimated selling price of a license to our proprietary technology, we consider market conditions as well as entity-specific factors, including those factors contemplated in negotiating the agreements as well as internally developed estimates that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the license. In validating our best estimate of selling price, we evaluate whether changes in the key assumptions used to determine our best estimate of selling price will have a significant effect on the allocation of arrangement consideration between deliverables. We recognize consideration allocated to an individual element when all other revenue recognition criteria are met for that element.

Our multiple-element revenue arrangements generally include the following:

Exclusive Licenses. The deliverables under our collaboration agreements generally include exclusive licenses to discover, develop, manufacture and commercialize compounds with respect to one or more specified HMT targets. To account for this element of the arrangement, we evaluate whether the exclusive license has standalone value from the undelivered elements to the collaboration partner based on the consideration of the relevant facts and circumstances of each arrangement, including the research and development capabilities of the collaboration partner and other market participants. Arrangement consideration allocated to licenses may be recognized upon delivery of the license if facts

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and circumstances indicate that the license has standalone value apart from the undelivered elements, which generally include research and development services. Arrangement consideration allocated to licenses is deferred if facts and circumstances indicate that the delivered license does not have standalone value from the undelivered elements.

We have determined that some of our exclusive licenses lack standalone value apart from the related research and development services, and in those circumstances we recognize collaboration revenue from non-refundable exclusive license fees on a straight-line basis over the contracted or estimated period of performance, which is generally the period over which the research and development services are to be provided.

Research and Development Services. The deliverables under our collaboration and license agreements generally include deliverables related to research and development services to be performed on behalf of the collaboration partner. As the provision of research and development services is a part of our central operations, when we are principally responsible for the performance of these services under the agreements, we recognize revenue on a gross basis for research and development services as those services are performed.

Option Arrangements. Our arrangements may provide a collaborator with the right to select a target for licensing either at the inception of the arrangement or within an initial pre-defined selection period, which may, in certain cases, include the right of the collaborator to extend the selection period. Under these agreements, fees may be due to us at the inception of the arrangement as an upfront fee or payment, upon the exercise of an option to acquire a license or upon extending the selection period as an extension fee or payment.

The accounting for option arrangements is dependent on the nature of the options granted to the collaboration partner. 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 options to secure exclusive licenses. Factors that are considered in evaluating whether options are substantive include the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the options, the cost to exercise the options relative to the total upfront consideration and the additional financial commitments or economic penalties imposed on the collaborator as a result of exercising the options. For arrangements under which the option to secure licenses is considered substantive, we do not consider the licenses to be deliverables at the inception of the arrangement. For arrangements where the option to secure licenses is not considered substantive, we consider the license to be a deliverable at the inception of the arrangement and, upon delivery of the license, would apply the multiple-element revenue arrangement criteria to the license and any other deliverables to determine the appropriate revenue recognition. None of the options to secure exclusive licenses included in our collaborative arrangements have been determined to be substantive.

Milestone Revenue. Our collaboration and license agreements generally include contingent milestone payments related to specified preclinical research and development milestones, clinical development milestones, regulatory milestones and sales-based milestones. Preclinical research and development milestones are typically payable upon the selection of a compound candidate for the next stage of research and development. Clinical development milestones are typically payable when a product candidate initiates or advances in clinical trial phases or achieves defined clinical events, such as proof-of-concept. Regulatory milestones are typically payable upon submission for marketing approval with regulatory authorities, upon receipt of actual marketing approvals for a compound or for additional indications or upon the first commercial sale. Sales-based milestones are typically payable when annual sales reach specified levels.

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At the inception of each 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:

- the consideration is commensurate with either the entity 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 entity s performance to achieve the milestone;
- the consideration relates solely to past performance; and
- the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement.

We evaluate factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

Non-refundable preclinical research and development, clinical development and regulatory milestones that are expected to be achieved as a result of our efforts during the period of our performance obligations under the collaboration and license agreements are generally considered to be substantive and are recognized as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. If not considered to be substantive, revenue from achievement of milestones is initially deferred and recognized over the remaining term of our performance obligations. Milestones that are not considered substantive because we do not contribute effort to their achievement are recognized as revenue upon achievement, assuming all other revenue recognition criteria are met, as there are no undelivered elements remaining and no continuing performance obligations on our part.

Stock-Based Compensation

We issue stock-based compensation awards to employees, including stock options and restricted stock, and offer an employee stock purchase plan. We measure stock-based compensation expense related to these awards based on the fair value of the award on the date of grant and recognize stock-based compensation expense, less estimated forfeitures, on a straight-line basis over the requisite service period of the awards, which generally equals the vesting period. We have selected the Black-Scholes option pricing model to determine the fair value of stock option awards which requires the input of various assumptions that require management to apply judgment and make assumptions and estimates, including:

- the expected life of the stock option award, which we calculate using the simplified method as we have insufficient historical information regarding our stock options to provide a basis for estimate;
- the expected volatility of the underlying common stock, which we estimate based on the historical volatility of a peer group of comparable publicly traded companies with product candidates in similar stages of development; and

historically, the fair value of our common stock determined on the date of grant.

Our assumptions may differ from those used in prior periods, and changes in the assumptions may have a significant impact on the fair value of future equity awards, which could have a material impact on our consolidated financial statements. We grant stock options with exercise prices equal to the estimated fair value of our common stock on the date of grant.

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. We estimate forfeitures for employee grants at the time of grant, and revise the estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Ultimately, the actual expense recognized over the vesting period will only represent those options that vest.

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Since our initial public offering, the exercise price per share of all option grants has been set at the closing price of our common stock on The NASDAQ Global Market on the applicable date of grant, which our board of directors believes represents the fair value of our common stock.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, *Revenue From Contracts With Customers*. ASU 2014-09 amends Accounting Standards Codification (ASC) 605, *Revenue Recognition*, by outlining a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. ASU 2014-09 will be effective for us for interim and annual periods beginning after December 15, 2016. We are evaluating the impact that this ASU may have on our consolidated financial statements, if any.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties About an Entity s Ability to Continue as a Going Concern*. ASU 2014-15 amends ASC 205-40, *Presentation of Financial Statements Going Concern*, by providing guidance on determining when and how reporting entities must disclose going-concern uncertainties in their financial statements, including requiring management to perform interim and annual assessments of an entity s ability to continue as a going concern within one year of the date of issuance of the entity s financial statements and providing certain disclosures if there is substantial doubt about the entity s ability to continue as a going concern. ASU 2014-15 will be effective for us for annual periods ending after December 15, 2016 and interim periods within annual periods beginning after December 15, 2016. We are still evaluating the impact of this ASU on our condensed consolidated financial statements; however, it is disclosure-only in nature.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The market risk inherent in our financial instruments and in our financial position represents the potential loss arising from adverse changes in interest rates. As of December 31, 2014, we had cash equivalents of $184.3 million consisting of interest-bearing money market accounts and prime money market funds. 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 maturities of our cash equivalents and the low risk profile of these investments, an immediate 100 basis point change in interest rates at levels as of December 31, 2014 would not have a material effect on the fair market value of our cash equivalents.

We contract with CROs and manufacturers internationally. Transactions with these providers are predominantly settled in U.S. dollars and, therefore, we believe that we have only minimal exposure to foreign currency exchange risks. We do not hedge against foreign currency risks.

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Item 8. Financial Statements and Supplementary Data

The information required by this item may be found on pages F-2 through F-32 as listed below, including the quarterly information required by this item.

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of December 31, 2014. In designing and evaluating our disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our principal executive officer and principal financial officer concluded that as of December 31, 2014, our disclosure controls and procedures were (1) designed to ensure that material information relating to us is made known to our management including our principal executive officer and principal financial officer by others, particularly during the period in which this report was prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms.

Management s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel, 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 and includes those policies and procedures that:

pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;

provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and

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provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2014. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO, in *Internal Control Integrated Framework (2013)*. Based on its assessment, management believes that, as of December 31, 2014, our internal control over financial reporting is effective based on those criteria.

Changes in Internal Controls over Financial Reporting

No change in the Company s internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended December 31, 2014 that has materially affected, or is reasonably likely to materially affect, the Company s internal control over financial reporting.

Item 9B. Other Information

None.

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PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K and is incorporated by reference from our definitive proxy statement relating to our 2015 annual meeting of stockholders, pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, also referred to in this Annual Report on Form 10-K as our 2015 Proxy Statement, which we expect to file with the SEC no later than April 30, 2015.

Item 10. Directors, Executive Officers and Corporate Governance

Information regarding our directors, including the audit committee and audit committee financial experts, and executive officers and compliance with Section 16(a) of the Exchange Act will be included in our 2015 Proxy Statement and is incorporated herein by reference.

We have adopted a Code of Business Conduct and Ethics for all of our directors, officers and employees as required by NASDAQ governance rules and as defined by applicable SEC rules. Stockholders may locate a copy of our Code of Business Conduct and Ethics on our website at www.epizyme.com or request a copy without charge from:

Epizyme, Inc.

Attention: Investor Relations

400 Technology Square, 4th Floor

Cambridge, MA 02139

We will post to our website any amendments to the Code of Business Conduct and Ethics, and any waivers that are required to be disclosed by the rules of either the SEC or NASDAQ.

Item 11. Executive Compensation

The information required by this item regarding executive compensation will be included in our 2015 Proxy Statement and is incorporated herein by reference.

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

The information required by this item regarding security ownership of certain beneficial owners and management and securities authorized for issuance under equity compensation plans will be included in our 2015 Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item regarding certain relationships and related transactions and director independence will be included in our 2015 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information required by this item regarding principal accounting fees and services will be included in our 2015 Proxy Statement and is incorporated herein by reference.

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PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) The following documents are included in this Annual Report on Form 10-K:

1. The following Report and Consolidated Financial Statements of the Company are included in this Annual Report:

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets

Consolidated Statements of Operations and Comprehensive Loss

Consolidated Statements of Cash Flows

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders (Deficit) Equity

Notes to Consolidated Financial Statements

2. All financial schedules have been omitted because the required information is either presented in the consolidated financial statements or the notes thereto or is not applicable or required.

3. The exhibits required by Item 601 of Regulation S-K and Item 15(b) of this Annual Report on Form 10-K are listed in the Exhibit Index immediately preceding the exhibits and are incorporated herein.

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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.

Epizyme, Inc.

By: /s/ Robert J. Gould
Robert J. Gould, Ph.D.
President and Chief Executive Officer

Dated: March 12, 2015

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

Name	Title	Date
/s/ Robert J. Gould Robert J. Gould, Ph.D.	President, Chief Executive Officer, Director *(Principal Executive Officer)*	March 12, 2015
/s/ Andrew E. Singer Andrew E. Singer	Executive Vice President of Finance and Administration, Chief Financial Officer and Treasurer *(Principal Financial and Accounting Officer)*	March 12, 2015
/s/ Andrew R. Allen Andrew R. Allen, M.D., Ph.D.	Director	March 12, 2015
/s/ Kenneth Bate Kenneth Bate	Director	March 12, 2015
/s/ Carl Goldfischer Carl Goldfischer, M.D.	Director	March 12, 2015
/s/ David M. Mott David M. Mott	Director	March 12, 2015
/s/ Richard F. Pops Richard F. Pops	Director	March 12, 2015
/s/ Beth Seidenberg Beth Seidenberg, M.D.	Director	March 12, 2015

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EXHIBIT INDEX

Exhibit Number	Description of Exhibit
3.1	Restated Certificate of Incorporation of the Registrant (1)
3.2	Amended and Restated Bylaws of the Registrant (2)
4.2	Amended and Restated Investor Rights Agreement dated as of April 2, 2012 (4)
10.1+	2008 Stock Incentive Plan (4)
10.2+	Form of Incentive Stock Option Agreement under 2008 Stock Incentive Plan (4)
10.3+	Form of Nonstatutory Stock Option Agreement under 2008 Stock Incentive Plan (4)
10.4+	Form of Restricted Stock Agreement under 2008 Stock Incentive Plan (4)
10.5+	2013 Stock Incentive Plan (2)
10.6+	Form of Incentive Stock Option Agreement under 2013 Stock Incentive Plan (2)
10.7+	Form of Nonstatutory Stock Option Agreement under 2013 Stock Incentive Plan (2)
10.8+	Form of Restricted Stock Agreement under 2013 Stock Incentive Plan (2)
10.9+	Form of Restricted Stock Unit Agreement under 2013 Stock Incentive Plan (14)
10.10+	2013 Employee Stock Purchase Plan (2)
10.11+	Executive Severance and Change in Control Plan (2)
10.12	Collaboration and License Agreement dated as of January 8, 2011 by and between the Registrant and Glaxo Group Limited (3)
10.13+	Employment Offer Letter dated April 3, 2013 by and between the Registrant and Robert J. Gould, Ph.D. (2)
10.14+	Employment Offer Letter dated April 3, 2013 by and between the Registrant and Jason P. Rhodes (2)
10.15+	Employment Offer Letter dated April 3, 2013 by and between the Registrant and Robert A. Copeland, Ph.D. (2)
10.16+	Employment Offer Letter dated April 3, 2013 by and between the Registrant and Eric E. Hedrick, M.D. (2)
10.17+	Employment Offer Letter dated September 8, 2014 by and between the Registrant and Peter T.C. Ho, M.D., Ph.D. (12)
10.18+	Employment Offer Letter dated January 28, 2015 by and between the Registrant and Andrew E. Singer (13)
10.19	Form of Director and Officer Indemnification Agreement (2)
10.20	Collaboration and License Agreement dated as of April 1, 2011 by and between the Registrant and Eisai Co., Ltd. (3)
10.21	

	License and Collaboration Agreement dated as of April 2, 2012 by and between the Registrant and Celgene International Sàrl and Celgene Corporation (3)
10.22	Companion Diagnostics Agreement dated as of December 18, 2012 between the Registrant and Eisai Co., Ltd. on the one side and Roche Molecular Systems, Inc. on the other side (3)

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Exhibit Number	Description of Exhibit
10.23	Letter Agreement by and between the Registrant and Eisai Co., Ltd. dated as of December 21, 2012 relating to Companion Diagnostics Agreement (4)
10.24	License Agreement dated January 7, 2008 between The University of North Carolina at Chapel Hill and the Registrant (3)
10.25	Development and Commercialization Agreement dated February 28, 2013 between the Registrant and Abbott Molecular Inc. (3)
10.26	Amendment to Collaboration and License Agreement dated as of July 31, 2012 by and between the Registrant and Eisai Co. Ltd. (3)
10.27	Lease dated as of February 22, 2011 by and between the Registrant and BMR-325 Vassar Street LLC (4)
10.28	Lease Agreement dated as of June 15, 2012 between the Registrant and ARE-TECH Square, LLC (4)
10.29	Non-Employee Director Compensation Program (3)
10.30	Amendment to Lease Agreement dated as of September 30, 2013 between the Registrant and ARE-TECH Square, LLC (5)
10.31	First Amendment to the Companion Diagnostics Agreement dated October 23, 2013 between the Registrant and Eisai Co. Ltd. On the one side and Roche Molecular Systems, Inc. on the other side (6)
10.32	Amendment No. 1 to the License and Collaboration Agreement dated October 8, 2013 between the Registrant and Celgene International Sàrl and Celgene Corporation (6)
10.33	Amendment to Collaboration and License Agreement dated as of July 23, 2013 by and between the Registrant and Glaxo Group Limited (7)
10.34	Amendment to Collaboration and License Agreement dated as of February 24, 2014 by and between the Registrant and Glaxo Group Limited (8)
10.35	Amendment to Collaboration and License Agreement dated as of March 18, 2014 by and between the Registrant and Glaxo Group Limited (8)
10.36	Amendment to Collaboration and License Agreement dated as of April 17, 2014 by and between the Registrant and Glaxo Group Limited (9)
10.37¥	Amendment to Collaboration and License Agreement dated as of October 1, 2014 by and between the Registrant and Glaxo Group Limited (14)
10.38	Consulting agreement dated as of September 2, 2014 by and between the Registrant and Jason P. Rhodes (10)
10.39	Consulting agreement dated as of October 27, 2014 by and between the Registrant and Eric E. Hedrick (11)
10.40	Amendment to consulting agreement dated as of December 19, 2014 by and between the Registrant and Eric E. Hedrick (14)
21.1	Subsidiaries of the Registrant (4)
23.1	Consent of Ernst & Young LLP (14)
23.2	Consent of Clarion Healthcare, LLC (14)

31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (14)

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Exhibit Number	Description of Exhibit
31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (14)
32.1	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002, by Robert J. Gould, Ph.D., President and Chief Executive Officer of the Company, and Andrew E. Singer, Executive Vice President of Finance and Administration, Chief Financial Officer and Treasurer of the Company. (14)
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Labels Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

+ Management compensatory agreement.
Confidential treatment has been granted as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.

¥ Confidential treatment requested as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.

(1) Incorporated by reference to the Registrant s Current Report on Form 8-K (File No. 001-35945) filed with the Securities and Exchange Commission on June 7, 2013.

(2) Incorporated by reference to the Registration Statement on Form S-1 (File No. 333-187892) filed with the Securities and Exchange Commission on April 26, 2013.

(3) Incorporated by reference to the Registration Statement on Form S-1 (File No. 333-187982) filed with the Securities and Exchange Commission on May 13, 2013.

(4) Incorporated by reference to the Registration Statement on Form S-1 (File No. 333-187982) filed with the Securities and Exchange Commission on April 18, 2013.

(5) Incorporated by reference to the Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on October 23, 2013.

(6) Incorporated by reference to the Registration Statement on Form S-1 (File No. 333-193569) filed with the Securities and Exchange Commission on January 27, 2014.

(7) Incorporated by reference to the Registration Statement on Form S-1 (File No. 333-193569) filed with the Securities and Exchange Commission on January 28, 2014.

(8) Incorporated by reference to the Registrant s Current Report on Form 8-K (File No. 001-35945) filed with the Securities and Exchange Commission on April 22, 2014.

(9) Incorporated by reference to the Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 14, 2014.

(10) Incorporated by reference to the Registrant s Current Report on Form 8-K (File No. 001-35945) filed with the Securities and Exchange Commission on September 2, 2014.

(11) Incorporated by reference to the Registrant s Current Report on Form 8-K (File No. 001-35945) filed with the Securities and Exchange Commission on October 27, 2014.

(12)

Incorporated by reference to the Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 6, 2014.

(13) Incorporated by reference to the Registrant s Current Report on Form 8-K (File No. 001-35945) filed with the Securities and Exchange Commission on February 3, 2015.

(14) Filed with this Annual Report on Form 10-K.

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EPIZYME, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders

Epizyme, Inc.

We have audited the accompanying consolidated balance sheets of Epizyme, Inc. (the Company) as of December 31, 2014 and 2013, and the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders (deficit) equity, and cash flows for each of the three years in the period ended December 31, 2014. 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 Epizyme, Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts

March 12, 2015

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EPIZYME, INC.

CONSOLIDATED BALANCE SHEETS

(Amounts in thousands except share and per share data)

	December 31, 2014	December 31, 2013
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 190,095	$ 123,564
Accounts receivable	2,075	33,667
Prepaid expenses and other current assets	2,840	2,421
Total current assets	195,010	159,652
Property and equipment, net	3,620	2,157
Restricted cash and other assets	573	1,179
Total Assets	$ 199,203	$ 162,988
LIABILITIES AND STOCKHOLDERS EQUITY		
Current Liabilities:		
Accounts payable	$ 8,300	$ 4,698
Accrued expenses	7,043	6,632
Current portion of deferred revenue	1,702	23,243
Total current liabilities	17,045	34,573
Deferred revenue, net of current portion	21,449	23,629
Other long-term liabilities	427	473
Commitments and contingencies		
Stockholders Equity:		
Preferred stock, $0.0001 par value; 5,000,000 shares authorized; 0 shares issued and outstanding		
Common stock, $0.0001 par value; 125,000,000 shares authorized; 34,426,012 shares and 28,494,447 shares issued, respectively; 34,426,012 shares and 28,488,892 shares outstanding, respectively	3	3
Additional paid-in capital	271,364	160,390
Accumulated deficit	(111,085)	(56,080)
Total stockholders equity	160,282	104,313
Total Liabilities and Stockholders Equity	$ 199,203	$ 162,988

See notes to consolidated financial statements.

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EPIZYME, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(Amounts in thousands except per share data)

	Year Ended December 31,		
	2014	**2013**	**2012**
Collaboration revenue	$ 41,411	$ 68,482	$ 45,222
Operating expenses:			
Research and development	75,595	57,567	38,482
General and administrative	20,866	14,042	7,508
Total operating expenses	96,461	71,609	45,990
Operating loss	(55,050)	(3,127)	(768)
Other income (expense):			
Interest income	95	74	145
Other income (expense), net	59	(81)	(78)
Other income (expense), net	154	(7)	67
Loss before income taxes	(54,896)	(3,134)	(701)
Income tax expense	109	349	1
Net loss	$ (55,005)	$ (3,483)	$ (702)
Less: accretion of redeemable convertible preferred stock to redemption value		264	486
Loss allocable to common stockholders	$ (55,005)	$ (3,747)	$ (1,188)
Loss per share allocable to common stockholders:			
Basic	$ (1.67)	$ (0.22)	$ (0.72)
Diluted	$ (1.67)	$ (0.22)	$ (0.72)
Weighted average shares outstanding:			
Basic	33,027	17,049	1,645
Diluted	33,027	17,049	1,645
Comprehensive loss	$ (55,005)	$ (3,483)	$ (702)

See notes to consolidated financial statements.

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EPIZYME, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)

	Year Ended December 31,		
	2014	**2013**	**2012**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	$ (55,005)	$ (3,483)	$ (702)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation and amortization	742	703	847
Stock-based compensation	6,864	2,819	689
Loss on disposal of property and equipment	2		35
Changes in operating assets and liabilities:			
Accounts receivable	31,592	(31,838)	44
Prepaid expenses and other current assets	(419)	(1,495)	(607)
Accounts payable	3,611	1,641	469
Accrued expenses	411	2,304	2,667
Deferred revenue	(23,721)	(22,573)	39,628
Restricted cash and other assets	606	(433)	(415)
Other long-term liabilities	(46)	(1,379)	1,499
Net cash (used in) provided by operating activities	(35,363)	(53,734)	44,154
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	(2,216)	(630)	(1,482)
Proceeds from property insurance claim			37
Net cash used in investing activities	(2,216)	(630)	(1,445)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from sale of redeemable convertible preferred stock			21,961
Proceeds from public offering, net of commissions	101,283	82,491	
Proceeds from stock options exercised	2,736	277	8
Excess tax benefit from stock option plan	17	28	
Issuance of shares under employee stock purchase plan	454		
Payment of redeemable convertible preferred stock issuance costs			(38)
Payment of common stock offering costs	(649)	(2,849)	
Proceeds from reimbursement of common stock offering costs	269		
Net cash provided by financing activities	104,110	79,947	21,931
Net increase in cash and cash equivalents	66,531	25,583	64,640
Cash and cash equivalents, beginning of period	123,564	97,981	33,341

Cash and cash equivalents, end of period	$ 190,095	$ 123,564	$ 97,981
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Purchases of property and equipment unpaid at period end	81	90	
Conversion of redeemable convertible preferred stock to common stock		76,420	
Accretion of redeemable convertible preferred stock to redemption value		264	486
Vesting of restricted stock liability			9
Cash paid for income taxes	963	8	92

See notes to consolidated financial statements.

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EPIZYME, INC.

CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS (DEFICIT) EQUITY

(Amounts in thousands except share data)

	Common Stock		Treasury	Additional Paid-In	Accumulated	Total Stockholders (Deficit)	Redeemable Convertible Preferred Stock	
	Shares	Amount	Stock	Capital	Deficit	Equity	Shares	Carrying Value
Balance at December 31, 2011	1,645,729			1,251	(51,895)	(50,644)	52,095,243	53,747
Issuance of Series C redeemable convertible preferred stock (net of issuance costs of $38)							9,803,922	21,923
Exercise of stock options	15,800			8		8		
Vesting of restricted common stock issued to non-employees				9		9		
Stock-based compensation	33,333			689		689		
Accretion of redeemable convertible preferred stock to redemption value				(486)		(486)		486
Net loss					(702)	(702)		
Balance at December 31, 2012	1,694,862	$	$	$ 1,471	$ (52,597)	$ (51,126)	61,899,165	$ 76,156
Issuance of common stock (net of commissions and offering costs of $2,849)	5,913,300	1		79,641		79,642		
Exercise of stock options	253,239			277		277		
Stock-based compensation				2,819		2,819		

Excess tax benefit from stock option plan				28		28		
Accretion of redeemable convertible preferred stock to redemption value				(264)		(264)		264
Conversion of redeemable convertible preferred stock to common stock	20,633,046	2		76,418		76,420	(61,899,165)	(76,420)
Retirement of treasury stock								
Net loss					(3,483)	(3,483)		
Balance at December 31, 2013	28,494,447	$ 3	$	$ 160,390	$ (56,080)	$ 104,313		$
Issuance of common stock (net of commissions and offering costs of $380)	3,673,901			100,903		100,903		
Exercise of stock options	2,239,643			2,736		2,736		
Stock-based compensation				6,864		6,864		
Excess tax benefit from stock option plan				17		17		
Issuance of shares under employee stock purchase plan	18,021			454		454		
Net loss					(55,005)	(55,005)		
Balance at December 31, 2014	34,426,012	$ 3	$	$ 271,364	$ (111,085)	$ 160,282		$

See notes to consolidated financial statements.

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EPIZYME, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. The Company

Epizyme, Inc. (collectively referred to with its wholly owned, controlled subsidiary, Epizyme Securities Corporation, as Epizyme or the Company) is a clinical stage biopharmaceutical company that discovers, develops and plans to commercialize novel epigenetic therapies for cancer patients. The Company has built a proprietary product platform that it uses to create small molecule inhibitors of a 96-member class of enzymes known as histone methyltransferases (HMTs). Genetic alterations can result in changes to the activity of HMTs, making them oncogenic. The Company s therapeutic strategy is to inhibit oncogenic HMTs to treat the underlying causes of the associated cancers.

On June 5, 2013, the Company completed an initial public offering (IPO) of its common stock, which resulted in the sale of 5,913,300 shares, including all additional shares available to cover over-allotments, at a price of $15.00 per share. The Company received net proceeds before expenses from the IPO of $82.5 million after deducting underwriting discounts and commissions paid by the Company. In preparation for the IPO, the Company s Board of Directors and stockholders approved a one-for-three reverse stock split of the Company s common stock effective May 13, 2013. All share and per share amounts in the consolidated financial statements and notes thereto have been retroactively adjusted, where necessary, to give effect to this reverse stock split. In connection with the closing of the IPO, all of the Company s outstanding redeemable convertible preferred stock automatically converted to common stock at a one-for-three ratio as of June 5, 2013, resulting in an additional 20,633,046 shares of common stock of the Company becoming outstanding. Following these transactions, the Company s total issued common stock as of December 31, 2013 was 28,494,447 shares.

In February 2014, the Company completed a public offering of its common stock, which resulted in the sale of 3,673,901 shares, including all additional shares available to cover over-allotments, at a price of $29.25 per share. The Company received net proceeds before expenses from this offering of $101.3 million after deducting underwriting discounts and commissions paid by the Company. Following this transaction, the Company s total issued common stock as of December 31, 2014 was 34,426,012 shares.

The significant increases in shares outstanding in June 2013 and February 2014 are expected to impact the year-over-year comparability of the Company s (loss) earnings per share calculations through 2015.

The Company has generated an accumulated deficit of $111.1 million through December 31, 2014 and will require substantial additional capital to fund its research and development. It is subject to risks common to companies in the biotechnology industry, including, but not limited to, risks of failure of preclinical studies and clinical trials, the need to obtain marketing approval for its product candidates, the need to successfully commercialize and gain market acceptance of its product candidates, dependence on key personnel, protection of proprietary technology, compliance with government regulations, development by competitors of technological innovations and ability to transition from pilot-scale manufacturing to large-scale production of products.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned, controlled subsidiary, Epizyme Securities Corporation. All intercompany balances and transactions have been eliminated in

consolidation.

Use of Estimates

The preparation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities, as of

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the date of the consolidated financial statements, and the reported amounts of collaboration revenue and expenses during the reporting period. Actual results and outcomes may differ materially from management s estimates, judgments and assumptions.

Subsequent Events

The Company considers events or transactions that occur after the balance sheet date but before the consolidated financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. The Company evaluated all events and transactions through the date these financial statements were filed with the Securities and Exchange Commission.

Fair Value Measurements

The Company classifies fair value based measurements using a three-level hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows: Level 1, quoted market prices in active markets for identical assets or liabilities; Level 2, observable inputs other than quoted market prices included in Level 1 such as quoted market prices for markets that are not active or other inputs that are observable or can be corroborated by observable market data; and Level 3, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The Company s financial instruments as of December 31, 2014 and 2013 consisted primarily of cash and cash equivalents, accounts receivable and accounts payable. As of December 31, 2014 and 2013, the Company s financial assets recognized at fair value consisted of the following:

	Fair Value as of December 31, 2014			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Cash equivalents	$ 184,257	$ 184,257	$	$
Total	$ 184,257	$ 184,257	$	$

	Fair Value as of December 31, 2013			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Cash equivalents	$ 121,424	$ 121,424	$	$
Total	$ 121,424	$ 121,424	$	$

Cash Equivalents

The Company considers all highly liquid investments with maturities of three months or less when purchased to be cash equivalents. As of December 31, 2014 and 2013, cash equivalents consisted of interest-bearing money market

accounts and prime money market funds.

Accounts Receivable

Accounts receivable are amounts due from collaboration partners as a result of research and development services provided, reimbursements under equally co-funded global development arrangements or milestones achieved but not yet paid. The Company considered the need for an allowance for doubtful accounts and has concluded that no allowance was needed as of December 31, 2014 or 2013, as the estimated risk of loss on its accounts receivable was determined to be minimal.

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Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk include cash and cash equivalents and accounts receivable. The Company attempts to minimize the risks related to cash and cash equivalents by working with highly rated financial institutions that invest in a broad and diverse range of financial instruments as defined by the Company. The Company has established guidelines relative to credit ratings and maturities intended to safeguard principal balances and maintain liquidity. The Company maintains its funds in accordance with its investment policy, which defines allowable investments, specifies credit quality standards and is designed to limit the Company s credit exposure to any single issuer.

Accounts receivable represent amounts due from collaboration partners. The Company monitors economic conditions to identify facts or circumstances that may indicate that any of its accounts receivable are at risk of collection.

As of December 31, 2014 and 2013, three collaboration partners, Celgene Corporation (Celgene), Eisai Co. Ltd. (Eisai) and Glaxo Group Limted (an affiliate of GlaxoSmithKline) (GSK) accounted for all of the Company s accounts receivable. Refer to Note 9, *Collaborations*, for additional information regarding the Company s collaboration agreements.

Property and Equipment

The Company records property and equipment at cost. The Company calculates depreciation and amortization using the straight-line method over the following estimated useful lives:

Asset Category	**Useful Lives**
Laboratory equipment	5 - 20 years
Office furniture and equipment	3 - 10 years
Leasehold improvements	3 - 10 years or term of respective lease, if shorter

The Company capitalizes expenditures for new property and equipment and improvements to existing facilities and charges the cost of maintenance to expense. The Company eliminates the cost of property retired or otherwise disposed of, along with the corresponding accumulated depreciation, from the related accounts, and the resulting gain or loss is reflected in the results of operations.

Impairment of Long-Lived Assets

The Company reviews long-lived assets to be held and used, including property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets or asset group may not be recoverable. No such impairments were recorded during 2014, 2013 or 2012.

Evaluation of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset or asset group and its eventual disposition. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the asset or asset group, the assets are written down to their estimated fair values.

Income Taxes

The Company records deferred income taxes to recognize the effect of temporary differences between tax and financial statement reporting. The Company calculates the deferred taxes using enacted tax rates expected to be in

place when the temporary differences are realized and records a valuation allowance to reduce deferred tax assets if it is determined that it is more likely than not that all or a portion of the deferred tax asset will not be realized. The Company considers many factors when assessing the likelihood of future realization of deferred tax assets, including recent earnings results, expectations of future taxable income, carryforward periods available and other relevant factors. The Company records changes in the required valuation allowance in the period that the determination is made.

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The Company assesses its income tax positions and records tax benefits for all years subject to examination based upon management s evaluation of the facts, circumstances and information available as of the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50.0% likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, the Company does not recognize a tax benefit in the financial statements. The Company records interest and penalties related to uncertain tax positions, if applicable, as a component of income tax expense. Refer to Note 5, *Income Taxes*, for additional information regarding the Company s income taxes.

Redeemable Convertible Preferred Stock

The Company initially records preferred stock that may be redeemed at the option of the holder or based on the occurrence of events not under the Company s control outside of stockholders (deficit) equity at the value of the proceeds received or fair value, if lower, net of issuance costs. Subsequently, if it is probable that the preferred stock will become redeemable, the Company adjusts the carrying value to the redemption value over the period from the issuance date to the earliest possible redemption date using the effective interest method. If it is not probable that the preferred stock will become redeemable, the Company does not adjust the carrying value.

Common Stock Valuation

Prior to the completion of the Company s IPO, due to the absence of an active market for the Company s common stock, the Company utilized methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its common stock. The Company utilized a probability weighted expected return methodology for its common stock valuations as of February 11, 2011, April 30, 2012, November 30, 2012, February 28, 2013, April 18, 2013 and April 30, 2013 based upon an assessment of the probability of the occurrence of specific scenarios. Each valuation includes estimates and assumptions that require the Company s judgment. These estimates include assumptions regarding future performance, including the probability of successful completion of preclinical studies and clinical trials and the probability and estimated time to completion of an initial public offering or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date. Subsequent to the completion of the Company s IPO, which occurred on June 5, 2013, the fair value of the Company s common stock is based on observable market prices.

Revenue Recognition

The Company recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the Company s price to the customer is fixed or determinable and collectability is reasonably assured.

The Company has entered into collaboration and license agreements to discover, develop, manufacture and commercialize compounds directed to specific HMT targets. The terms of these agreements typically contain multiple deliverables, which may include: (i) licenses, or options to obtain licenses, to compounds directed to specific HMT targets (referred to as exclusive licenses) and (ii) research and development activities to be performed on behalf of the collaboration partner related to the licensed HMT targets. Payments to the Company under these agreements may include non-refundable license fees, option fees, exercise fees, payments for research activities, payments based upon the achievement of certain milestones and royalties on any resulting net product sales.

Multiple-Element Revenue Arrangements. The Company s collaborations primarily represent multiple-element revenue arrangements. To account for these transactions, the Company determines the elements, or deliverables, included in the arrangement and allocates arrangement consideration to the various elements based on each

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element s relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involves significant judgment, including consideration as to whether each delivered element has standalone value to the collaborator. The Company determines the estimated selling price for deliverables within each agreement using vendor-specific objective evidence (VSOE) of selling price, if available, or third party evidence of selling price if VSOE is not available, or the Company s best estimate of selling price, if neither VSOE nor third party evidence is available. Determining the best estimate of selling price for a deliverable requires significant judgment. The Company typically uses its best estimate of a selling price to estimate the selling price for licenses to its proprietary technology, since it often does not have VSOE or third party evidence of selling price for these deliverables. In those circumstances where the Company applies its best estimate of selling price to determine the estimated selling price of a license to its proprietary technology, it considers market conditions as well as entity-specific factors, including those factors contemplated in negotiating the agreements as well as internally developed estimates that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the license. In validating its best estimate of selling price, the Company evaluates whether changes in the key assumptions used to determine its best estimate of selling price will have a significant effect on the allocation of arrangement consideration between deliverables. The Company recognizes consideration allocated to an individual element when all other revenue recognition criteria are met for that element.

The Company s multiple-element revenue arrangements generally include the following:

Exclusive Licenses The deliverables under the Company s collaboration agreements generally include exclusive licenses to discover, develop, manufacture and commercialize compounds with respect to one or more specified HMT targets. To account for this element of the arrangement, management evaluates whether the exclusive license has standalone value from the undelivered elements to the collaboration partner based on the consideration of the relevant facts and circumstances of each arrangement, including the research and development capabilities of the collaboration partner. The Company may recognize arrangement consideration allocated to licenses upon delivery of the license if facts and circumstances indicate that the license has standalone value from the undelivered elements, which generally include research and development services. The Company defers arrangement consideration allocated to licenses if facts and circumstances indicate that the delivered license does not have standalone value from the undelivered elements.

The Company has determined that certain of its exclusive licenses lack standalone value apart from the related research and development services and is therefore recognizing collaboration revenue from non-refundable exclusive license fees on a straight-line basis over the contracted or estimated period of performance, which is generally the period over which the research and development services are to be provided.

Research and Development Services The deliverables under the Company s collaboration and license agreements generally include deliverables related to research and development services to be performed by the Company on behalf of the collaboration partner. As the provision of research and development services is a part of the Company s central operations, when the Company is principally responsible for the performance of these services under the agreements, the Company recognizes revenue on a gross basis for research and development services as those services are performed.

Option Arrangements The Company s arrangements may provide a collaborator with the right to select a target for licensing either at the inception of the arrangement or within an initial pre-defined selection period, which may, in certain cases, include the right of the collaborator to extend the selection period. Under these agreements, fees may be due to the Company (i) at the inception of the arrangement as an upfront fee or payment, (ii) upon the exercise of an option to acquire a license or (iii) upon extending the selection period as an extension fee or payment.

The accounting for option arrangements is dependent on the nature of the options granted to the collaboration partner. Options are considered substantive if, at the inception of the arrangement, the

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Company is at risk as to whether the collaboration partner will choose to exercise the options to secure exclusive licenses. Factors that the Company considers in evaluating whether options are substantive include the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the options, the cost to exercise the options relative to the total upfront consideration and the additional financial commitments or economic penalties imposed on the collaborator as a result of exercising the options. For arrangements under which the option to secure licenses is considered substantive, the Company does not consider the licenses to be deliverables at the inception of the arrangement. For arrangements under which the option to secure licenses is not considered substantive, the Company considers the license to be a deliverable at the inception of the arrangement and, upon delivery of the license, would apply the multiple-element revenue arrangement criteria to the license and any other deliverables to determine the appropriate revenue recognition. None of the options to secure exclusive licenses included in the Company s collaborative arrangements have been determined to be substantive.

Milestone Revenue. The Company s collaboration and license agreements generally include contingent milestone payments related to specified preclinical research and development milestones, clinical development milestones, regulatory milestones and sales-based milestones. Preclinical research and development milestones are typically payable upon the selection of a compound candidate for the next stage of research and development. Clinical development milestones are typically payable when a product candidate initiates or advances in clinical trial phases or achieves defined clinical events such as proof-of-concept. Regulatory milestones are typically payable upon submission for marketing approval with regulatory authorities or upon receipt of actual marketing approvals for a compound, approvals for additional indications, or upon the first commercial sale. Sales-based milestones are typically payable when annual sales reach specified levels.

At the inception of each 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 (a) the consideration is commensurate with either (i) the entity s performance to achieve the milestone or (ii) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity s performance to achieve the milestone; (b) the consideration relates solely to past performance; and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

The Company generally considers non-refundable preclinical research and development, clinical development and regulatory milestones that the Company expects to be achieved as a result of the Company s efforts during the period of the Company s performance obligations under the collaboration and license agreements to be substantive and recognizes them as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. If not considered to be substantive, the Company initially defers milestones and recognizes them over the remaining term of the Company s performance obligations. Milestones that are not considered substantive because the Company does not contribute effort to the achievement of such milestones are generally achieved after the period of the Company s performance obligations and are recognized as revenue upon achievement, assuming all other revenue recognition criteria are met, as there are no undelivered elements remaining and no continuing performance obligations.

Research and Development Expenses

Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits, facilities expenses, overhead expenses, clinical trial and related clinical

manufacturing expenses, fees paid to clinical research organizations and other outside expenses. The Company expenses research and development expenses as incurred. The Company records payments made for

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research and development services prior to the services being rendered as prepaid expenses on the consolidated balance sheets and expenses them as the services are provided. In circumstances where the Company s collaboration and license agreements provide for equally co-funded global development under joint risk sharing collaborations, amounts received from collaboration partners for such co-funding are recorded as a reduction to research and development expense.

Stock-Based Compensation

The Company measures employee stock-based compensation based on the grant date fair value of the stock-based compensation award. The Company generally grants stock options at exercise prices equal to the fair value of the Company s common stock on the date of grant. Refer to *Common Stock Valuation* for further information regarding the Company s policy for determining the fair value of its common stock.

The Company recognizes employee stock-based compensation expense, less estimated forfeitures, on a straight-line basis over the requisite service period of the awards. The Company estimates forfeitures at the time of grant and revises those estimates in subsequent periods if actual forfeitures differ from those estimates.

Refer to Note 10, *Employee Benefit Plans*, for additional information regarding the measurement and recognition of expense related to the Company s stock-based compensation awards.

Earnings (Loss) per Share

The Company computes basic earnings (loss) per share by dividing income (loss) allocable to common stockholders by the weighted average number of common shares outstanding. During periods of income, the Company allocates participating securities a proportional share of income determined by dividing total weighted average participating securities by the sum of the total weighted average common shares and participating securities (the two-class method). The Company s restricted stock and, prior to its automatic conversion, redeemable convertible preferred stock participate in any dividends declared by the Company and are therefore considered to be participating securities. Participating securities have the effect of diluting both basic and diluted earnings per share during periods of income. During periods of loss, the Company allocates no loss to participating securities because they have no contractual obligation to share in the losses of the Company. The Company computes diluted earnings (loss) per share after giving consideration to the dilutive effect of stock options that are outstanding during the period, except where such non-participating securities would be anti-dilutive. Refer to Note 11, *Loss per Share*, for the Company s calculation of loss per share for the periods presented.

Segment Information

The Company operates as one reportable business segment: the discovery and development of novel epigenetic therapies for cancer patients.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, *Revenue From Contracts With Customers*. ASU 2014-09 amends Accounting Standards Codification (ASC) 605, *Revenue Recognition*, by outlining a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. ASU 2014-09 will be effective for the Company for interim and annual periods beginning after December 15, 2016. The Company is evaluating the impact that this ASU may have on its consolidated financial statements, if any.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties About an Entity s Ability to Continue as a Going Concern*. ASU 2014-15 amends ASC 205-40, *Presentation of Financial Statements Going Concern*, by providing guidance on determining when and how reporting entities must disclose going-concern

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uncertainties in their financial statements, including requiring management to perform interim and annual assessments of an entity s ability to continue as a going concern within one year of the date of issuance of the entity s financial statements and providing certain disclosures if there is substantial doubt about the entity s ability to continue as a going concern. ASU 2014-15 will be effective for the Company for annual periods ending after December 15, 2016 and interim periods within annual periods beginning after December 15, 2016. The Company is still evaluating the impact of this ASU on its condensed consolidated financial statements; however, it is disclosure-only in nature.

3. Property and Equipment, net

Property and equipment, net consists of the following:

	December 31,	
	2014	2013
	(In thousands)	
Laboratory equipment	$ 3,456	$ 2,981
Office furniture and equipment	2,971	1,293
Leasehold improvements	473	430
Property and equipment	6,900	4,704
Less: accumulated depreciation and amortization	(3,280)	(2,547)
Property and equipment, net	$ 3,620	$ 2,157

Depreciation and amortization expense was $0.7 million, $0.7 million and $0.8 million for the years ended December 31, 2014, 2013 and 2012, respectively.

4. Accrued Expenses

Accrued expenses consisted of the following:

	December 31,	
	2014	2013
	(In thousands)	
Employee compensation and benefits	$ 2,623	$ 2,607
Contract termination obligation		355
Research and development and professional expenses	4,420	3,670
Accrued expenses	$ 7,043	$ 6,632

Contract termination obligation includes estimated lease exit charges related to the Company s former facility at 325 Vassar Street in Cambridge, Massachusetts. As of December 31, 2013, the Company had a recorded contract termination obligation of $0.4 million. During 2014, the Company made cash payments of $0.9 million and recorded sublease income of $0.5 million. There was no remaining contract termination obligation as of December 31, 2014.

5. Income Taxes

The Company s losses before income taxes consist solely of domestic losses. Income tax expense for the year ended December 31, 2014 consisted primarily of return-to-provision adjustments identified related to the year ended December 31, 2013. Income tax expense for the year ended December 31, 2013 consisted primarily of current federal tax expense as the Company was able to utilize all of its federal and state net operating loss carryforwards to offset the majority of its taxable income for the year. Income tax expense for the year ended

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December 31, 2012 consisted solely of current state expense as the Company was able to utilize federal net operating loss carryforwards to fully offset federal taxable income for the year. The Company had no deferred income tax expense for the years ended December 31, 2014, 2013 or 2012.

A reconciliation of the federal statutory income tax rate and the Company s effective income tax rate is as follows:

	Year Ended December 31,		
	2014	2013	2012
Federal statutory income tax rate	34.0%	34.0%	34.0%
State income taxes	4.9	5.2	5.1
Research and development and other tax credits	13.6	115.8	68.6
Permanent items	(5.2)	(18.3)	(41.7)
Change in valuation allowance	(44.3)	(140.7)	(60.9)
Return-to-provision adjustments	(3.1)	1.0	3.6
Change in deferred taxes		(9.6)	(9.0)
Other	(0.1)	1.5	0.2
Effective income tax rate	(0.2)%	(11.1)%	(0.1)%

Deferred Tax Assets (Liabilities)

The Company s deferred tax assets (liabilities) consist of the following:

	December 31,	
	2014	2013
	(In thousands)	
Deferred tax assets:		
Net operating loss carryforwards	$ 24,166	$
Research and development and other credit carryforwards	11,776	4,499
Capitalized start-up costs	2,317	2,518
Capitalized research and development costs	361	465
Deferred revenue	8,869	16,748
Accruals and allowances	1,095	1,111
Other	2,336	1,247
Gross deferred tax assets	50,920	26,588
Deferred tax asset valuation allowance	(50,608)	(26,289)
Total deferred tax assets	312	299
Deferred tax liabilities:		
Depreciation and other	(312)	(299)
Total deferred tax liabilities	(312)	(299)

Net deferred tax asset (liability)	$	$

The Company evaluated the expected recoverability of its net deferred tax assets as of December 31, 2014 and 2013 and determined that there was insufficient positive evidence to support the recoverability of these net deferred tax assets, concluding it is more likely than not that its net deferred tax assets would not be realized in the future; therefore the Company has provided a full valuation allowance against its net deferred tax asset balance as of December 31, 2014 and 2013. The valuation allowance increased by $24.3 million in 2014 compared to 2013.

As of December 31, 2014, the Company had operating loss carryforwards of approximately $112.3 million and $115.7 million available to offset future taxable income for United States federal and state income tax purposes,

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respectively. The United States federal tax operating loss carryforwards expire commencing in 2029. The state tax operating loss carryforwards expire commencing in 2031. Additionally, as of December 31, 2014 the Company had research and development tax credit carryforwards of approximately $4.6 million and $1.4 million available to be used as a reduction of federal income taxes and state income taxes, respectively, which expire at various dates from 2024 through 2034, as well as federal orphan drug tax credit carryforwards of $9.1 million, which would expire at various dates from 2033 through 2034, and a $0.4 million federal alternative minimum tax credit. The federal tax credit carryforwards include approximately $0.4 million related to excess tax benefits, which have been included in the gross deferred tax asset reflected for research and development and other credit carryforwards. This amount will be recorded as an increase to additional paid-in capital on the consolidated balance sheet when the excess benefits are realized.

The Company s ability to use its operating loss carryforwards and tax credits to offset future taxable income is subject to restrictions under Section 382 of the United States Internal Revenue Code (the Internal Revenue Code). These restrictions may limit the future use of the operating loss carryforwards and tax credits if certain ownership changes described in the Internal Revenue Code occur. Future changes in stock ownership may occur that would create further limitations on the Company s use of the operating loss carryforwards and tax credits. In such a situation, the Company may be required to pay income taxes, even though significant operating loss carryforwards and tax credits exist.

Uncertain Tax Positions

The following is a rollforward of the Company s unrecognized tax benefits:

	December 31,	
	2014	2013
	(In thousands)	
Unrecognized tax benefits - as of beginning of year	$ 1,829	$
Gross increases - tax positions of prior periods	(66)	1,217
Gross increases - current period tax positions	1,299	612
Unrecognized tax benefits - as of end of year	$ 3,062	$ 1,829

None of the Company s unrecognized tax benefits would result in income tax expense or impact the Company s effective tax rate if recognized. Prior to 2013, the Company had no recorded unrecognized tax benefits. The Company had no accrued tax-related interest or penalties as of December 31, 2014 or 2013.

The Company files income tax returns in the U.S. federal tax jurisdiction and Massachusetts and Indiana state tax jurisdictions. Since the Company is in a loss carryforward position, the Company 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.

6. Commitments and Contingencies

Commitments

In June 2012, the Company entered into an agreement to lease office and laboratory space at Technology Square in Cambridge, Massachusetts under an operating lease agreement with a term through November 30, 2017, with an option to extend the term of the lease for an additional five-year period at the then-current market rent, as defined in

the lease. With the execution of this lease, the Company was required to provide a $0.5 million letter of credit as a security deposit. The Company has recorded cash held to secure this letter of credit as restricted cash in restricted cash and other assets on the consolidated balance sheet. The Company recognizes rent expense, inclusive of escalation charges, on a straight-line basis over the initial term of the lease agreement. The Company began recognizing rent expense related to the Technology Square lease in December 2012, when the Company

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gained access to the leased space. In September 2013, the Company entered into an amendment to the Technology Square lease, under which the Company leased additional office space. In the fourth quarter of 2014, the Company entered into three new leases relating to the lease of IT equipment and storage space. These leases have three year terms generally commencing in 2015.

The Company s contractual commitments under these leases, excluding common area maintenance charges and real estate taxes, as of December 31, 2014 are as follows:

	Total	2015	2016	2017
		(In thousands)		
Leases:				
Real estate	$ 8,061	$ 2,687	$ 2,765	$ 2,609
Equipment	1,996	665	666	665
Total commitments	$ 10,057	$ 3,352	$ 3,431	$ 3,274

Rent expense, excluding contract termination costs related to the Vassar Street lease described in Note 4, *Accrued Expenses*, was $2.5 million, $2.0 million and $1.2 million for the years ended December 31, 2014, 2013 and 2012, respectively.

Contingencies

In January 2008, the Company entered into a license agreement with a university to obtain an exclusive license to certain patents and patent applications related to the Company s technology (the License Agreement). In connection with the License Agreement, the Company is required to pay up to $1.9 million upon the achievement of specified research, development and regulatory milestones. The milestone payments are due within 60 days following the occurrence of each milestone event. In addition, the Company may be required to pay royalties in the low single-digits on worldwide net product sales of screening method technologies and related materials, but not on any drugs, during the term of the License Agreement. The Company has paid milestones of $0.1 million under the License Agreement as of December 31, 2014. The next potential milestone payment that the Company might be obligated to pay is $0.2 million that would be payable upon the initiation of a Phase 2 clinical trial for any product developed under the License Agreement.

In October 2013, the Company entered into a license agreement with a third party to obtain a non-exclusive license to a patent related to an excipient in the formulation of a therapeutic product candidate. During the term of this license agreement, the Company may be required to make a 0.3 million milestone payment upon the first approval of a new drug application for this therapeutic product candidate and pay royalties in the low single digits on commercial net sales of the therapeutic product candidate.

7. Redeemable Convertible Preferred Stock

Prior to the completion of its IPO, the Company had outstanding Series A, Series B and Series C redeemable convertible preferred stock (collectively, the Preferred Stock). The Company classified the Preferred Stock outside of stockholders (deficit) equity because the shares contained redemption features that were not solely within the Company s control. In connection with the closing of the Company s IPO, all of the Company s outstanding Preferred Stock automatically converted into common stock at a one-for-three ratio as of June 5, 2013. No Preferred Stock was

outstanding as of December 31, 2013.

In April 2012, in connection with the execution of a collaboration agreement with Celgene Corporation and Celgene International Sàrl, collectively referred to as Celgene, the Company issued and sold 9,803,922 shares of its Series C Preferred Stock, $0.0001 par value per share (the Series C Preferred Stock), at a price of $2.55 per share (the Series C Original Issue Price), for gross proceeds of $25.0 million. The Company determined that

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the price paid by Celgene of $2.55 per share included a premium of $0.31 over the fair value per share of the Company s Series C Preferred Stock based on the results of a contemporaneous valuation. Accordingly, the Company considered the $3.0 million premium as additional arrangement consideration pursuant to the collaboration agreement, resulting in $22.0 million attributed to the Series C Preferred Stock. Refer to Note 9, *Collaborations*, for additional information regarding the Company s collaboration agreement with Celgene. Refer to Note 12, *Related Party Transactions*, for additional information regarding the Company s relationship with Celgene.

Preferred Stock consisted of the following as of December 31, 2012:

	Preferred Shares Authorized	Issuance Date(s)	Preferred Shares Issued and Outstanding	Redemption Value / Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion
			(Amounts in thousands except share data)			
Series A	14,000,000	2/28/2008	3,756,248	$ 3,756	$ 3,697	1,252,081
		5/16/2008	10,243,752	10,244	10,226	3,414,581
	14,000,000		14,000,000	14,000	13,923	4,666,662
Series B	38,096,000	9/18/2009	14,285,716	15,000	14,928	4,761,902
		12/4/2009	5,714,286	6,000	5,961	1,904,762
		9/30/2011	18,095,241	19,000	18,983	6,031,746
	38,096,000		38,095,243	40,000	39,872	12,698,410
Series C	9,803,922	4/2/2012	9,803,922	25,000	22,361	3,267,974
	61,899,922		61,899,165	$ 79,000	$ 76,156	20,633,046

The differences between the respective redemption values and carrying values were being accreted over the period from the date of issuance to the earliest possible redemption date. For the years ended December 31, 2013 and 2012, the Company recorded $0.3 million and $0.5 million of accretion of redeemable convertible preferred stock to redemption value, respectively. In connection with the closing of the Company s IPO, all of the Company s outstanding Preferred Stock automatically converted to common stock at a one-for-three ratio as of June 5, 2013.

For the periods during which the Preferred Stock remained outstanding, the Company had evaluated each of its series of Preferred Stock and determined that they should be considered an equity host and not a debt host as defined by ASC 815, *Derivatives and Hedging*. This evaluation was necessary in order to determine if any embedded features required bifurcation and, therefore, separate accounting as a derivative liability. The Company s analysis followed the whole instrument approach, which compares an individual feature against the entire preferred stock instrument which includes that feature. The Company s analysis was based on a consideration of the Preferred Stock s economic characteristics and risks and more specifically evaluated all the stated and implied substantive terms and features including (i) whether the Preferred Stock included redemption features, (ii) whether the preferred stockholders were entitled to dividends, (iii) the voting rights of the Preferred Stock and (iv) the existence and nature of any conversion rights. As a result of the Company s determination that the Preferred Stock was an equity host, the embedded conversion feature was not considered a derivative liability.

8. Stockholders (Deficit) Equity

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company s stockholders. Common stockholders are entitled to dividends when and if declared by the Board of Directors.

As of December 31, 2014, a total of 4,698,476 shares of common stock were reserved for issuance upon (i) the exercise of outstanding stock options and (ii) the issuance of stock awards under the Company s 2013 Stock Incentive Plan and 2013 Employee Stock Purchase Plan.

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9. Collaborations

Celgene

Overview

In April 2012, the Company entered into a collaboration and license agreement with Celgene to discover, develop and commercialize, in all countries other than the United States, small molecule HMT inhibitors targeting the DOT1L HMT, including the Company s product candidate EPZ-5676, and any other HMT targets from the Company s platform, excluding targets covered by the Company s two other existing therapeutic collaborations (the available targets).

Under the terms of the agreement, the Company received a $65.0 million upfront payment and $25.0 million from the sale of Series C Preferred Stock to an affiliate of Celgene, of which $3.0 million was considered a premium and included as collaboration arrangement consideration for a total upfront payment of $68.0 million. In addition, the Company has recorded a $25.0 million clinical development milestone payment and $5.8 million of global development co-funding through December 31, 2014. The Company is also eligible to earn up to $35.0 million in additional substantive clinical development milestone payments and up to $100.0 million in substantive regulatory milestone payments related to DOT1L as well as up to $65.0 million in payments, including a combination of substantive clinical development milestone payments and an option exercise fee for each selected target, and up to $100.0 million in substantive regulatory milestone payments for each available target as to which Celgene exercises its option during an initial option period ending in July 2015. Celgene has the right to extend the option period until July 2016 by making a significant option extension payment. As to DOT1L and each available target as to which Celgene exercises its option, the Company retains all product rights in the United States and is eligible to receive royalties for each target at defined percentages ranging from the mid-single digits to the mid-teens on net product sales outside of the United States subject to reduction in specified circumstances. Due to the uncertainty of pharmaceutical development and the high historical failure rates generally associated with drug development, the Company may not receive any milestone or royalty payments from Celgene. The next potential milestone payment that the Company might be entitled to receive under this agreement is a $35.0 million substantive milestone for the initiation of a pivotal clinical trial, as defined in the agreement, for its DOT1L inhibitor.

Through December 31, 2014, in addition to amounts allocated to Celgene s purchase of shares of the Company s Series C Preferred Stock, the Company had recorded a total of $98.8 million in cash and accounts receivable under the Celgene agreement, including the $3.0 million implied premium on Celgene s purchase of shares of the Company s Series C Preferred Stock described in Note 7, *Redeemable Convertible Preferred Stock*. The Company recognized $9.6 million, $37.8 million and $23.9 million of collaboration revenue in the consolidated statements of operations and comprehensive loss related to this agreement during the years ended December 31, 2014, 2013 and 2012, respectively, and $3.9 million and $1.9 million of global development co-funding as a reduction to research and development expense during the years ended December 31, 2014 and 2013, respectively. As of December 31, 2014, the Company had deferred revenue of $21.7 million related to this agreement.

Agreement Structure and Accounting Analysis. The Company granted Celgene an exclusive license, for all countries other than the United States, to HMT inhibitors directed to DOT1L and an option, on a target-by-target basis, to exclusively license, for all countries of the world other than the United States, rights to HMT inhibitors directed to other available targets during an initial three year period, which period may be extended by Celgene for one year upon an additional payment (the option period). During the option period, Celgene has the right to exercise its option to non-U.S. rights to available targets until the effectiveness of an investigational new drug application (IND) for an HMT inhibitor directed to such available target. Once a target is selected, Celgene does not have the right to replace it

with another target. If Celgene does not exercise its option with respect to an available target prior to the end of the option period, the Company would retain worldwide rights to HMT inhibitors directed to that target.

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For the DOT1L target, the Company is obligated to conduct and solely fund research and development costs of the Phase 1 clinical trials for EPZ-5676, after which point Celgene and the Company will equally co-fund global development and each party will solely fund territory-specific development costs for its territory. These future co-development activities were determined to be a contingent deliverable at the inception of the agreement due to the substantial clinical uncertainty that existed at agreement inception as to the success of the product candidate in planned Phase 1 clinical trials and, as a result, are being accounted for separately.

For the available targets, the Company must conduct and fully fund research and development activities through the option period. For any available target licensed to Celgene, the Company is obligated to conduct and solely fund research and development activities through the effectiveness of the first IND for an HMT inhibitor directed to such target, after which point Celgene and the Company will equally co-fund global development and each party will solely fund territory-specific development costs for its territory for such target. These future co-development activities were determined to be a contingent deliverable at the inception of the agreement due to the substantial clinical uncertainty that existed at agreement inception as to a product candidate achieving IND effectiveness and, as a result, will be accounted for separately when the activities occur. During the option period, the Company is required to use commercially reasonable efforts to conduct platform discovery activities necessary to characterize and identify available targets and HMT inhibitors directed to available targets and targets licensed to Celgene.

The significant deliverables of this multiple-element revenue arrangement were determined to be the DOT1L license, the licenses to available targets and the research services for DOT1L and the available targets. The license for DOT1L is a deliverable as the Company was obligated at contract inception to provide Celgene with the rights to develop, manufacture and commercialize products directed at the target. The Company concluded that the options to license available targets were not substantive as the Company was not at risk with regard to Celgene exercising its options due to the size of the upfront payment. While Celgene is not contractually required to exercise its options to acquire any licenses to available targets, the overall purpose of the agreement was for Celgene to license available targets and develop and commercialize compounds for those targets outside of the United States. Without exercising its options to license available targets, Celgene could not obtain the economic benefit needed in order to recover its significant upfront payment. Since the options are not considered substantive, the licenses for available targets were considered to be deliverables at the inception of the arrangement.

The Company concluded that, prior to IND effectiveness, the DOT1L license did not have standalone value apart from the related research services due to the limited economic benefit that Celgene would derive from the DOT1L license if it did not obtain the research services. In particular, the Company concluded that prior to IND effectiveness, the license could not be used for its intended purpose without the highly specialized skills and know-how relating to HMT inhibitors that are only available from the Company. After IND effectiveness, the Company concluded that the DOT1L license would have standalone value apart from any remaining undelivered development services because Celgene, or other market participants, would have the ability to execute human clinical trials on the identified compound. Accordingly, the DOT1L license and related research services were accounted for as a combined unit of accounting prior to IND effectiveness. After IND effectiveness, the research services have been accounted for as separate units of accounting which have standalone value upon delivery.

With respect to the licenses to the available targets, the Company concluded that, prior to IND effectiveness, the licenses do not have standalone value apart from the related research services due to the limited economic benefit that Celgene would derive if it did not obtain the research services. In particular, the Company concluded that prior to IND effectiveness, a license could not be used for its intended purpose without the highly specialized skills and know-how relating to HMT inhibitors that are only available from the Company. Accordingly, the licenses to the available targets and related research services have been accounted for as a combined unit of accounting prior to IND effectiveness. The Company has also concluded that the individual licenses would have standalone value from one another;

accordingly, the licenses to available targets and research services will be combined into units of accounting on a license-by-license basis prior to IND effectiveness. This conclusion was

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based on the determination that Celgene could derive benefit from any license and research services, prior to IND effectiveness, without regard to or receipt of any other license and accompanying research services prior to IND effectiveness.

The number and timing of the delivery of the licenses for the available targets depends upon the Company s research progress and Celgene s option election. Because the options to available targets are not considered substantive, any option exercise payments would be considered to be part of the total consideration for purposes of allocating the arrangement consideration. Accordingly, the Company has identified the allocable arrangement consideration as the $65.0 million upfront payment, the $3.0 million premium on Celgene s purchase of Series C Preferred Stock and an amount for option exercise fees for Celgene s expected selection of available targets that is based on a fixed option exercise fee for each target selected. Although there is no contractual limit to the number of licenses to available targets that could be delivered during the option period and the number of selected targets is not known, the Company has estimated the number of available targets that it believes are reasonably likely to be selected by Celgene during the option period, based on information available to management at the time the agreement was executed, including the stage of development of the Company s available targets, for the purpose of determining the allocable arrangement consideration. The Company concluded that Celgene would select three targets based on the status of research on prioritized targets within the Company s product platform at the inception of the agreement and the likelihood of three candidates reaching IND effectiveness within the selection period ending in July 2015. The allocable arrangement consideration has been allocated to the identified deliverables using the relative selling price method. The Company estimated the selling price of the DOT1L license deliverable and each available target license deliverable using management s best estimate of selling price after considering market data regarding the pricing of development and commercialization licenses for development candidates at similar stages of development after considering the territories covered by the licenses, as well as entity-specific factors such as the pricing terms of the Company s previous collaboration arrangements, recent research and development results related to the Company s product platform and preclinical product candidates, the market potential for each target and the Company s pricing practices and pricing objectives. The Company estimated the selling price of the research services to be provided in connection with the DOT1L license deliverable and each available target license deliverable using management s best estimate of selling price based on the Company s cost of providing the services plus an applicable profit margin of 10%, which is commensurate with observable market data for similar services. Under this method, the relative selling price of each deliverable was estimated based on the Company s analysis of (i) the stage of development of DOT1L and the available targets at both the inception of the arrangement and the potential option exercise dates; (ii) the market potential for each target; (iii) the level of effort required to advance DOT1L through the completion of Phase 1 clinical trials and each available target to IND effectiveness and (iv) the research funding structure for each program.

The Company expects to recognize the allocated arrangement consideration as follows:

DOT1L and related research services

The Company allocated $15.7 million to the DOT1L license and related research services prior to IND effectiveness based on the factors previously described and recognized this revenue ratably over the period from contract inception through the date of IND effectiveness in July 2012, as the related research services were provided.

The remaining DOT1L research services have been determined to represent two separate units of accounting. Accordingly, based on the factors previously described, $12.1 million was allocated to the post-IND research services to be provided in connection with the lead product candidate for DOT1L, EPZ-5676, and $18.8 million was allocated to the research services to be provided in connection with other potential DOT1L product candidates. The Company is recognizing revenue ratably for each unit of accounting over the period that the corresponding research services are to be provided, which for the post-IND research services for EPZ-5676 is from the date of IND effectiveness in July 2012 through the estimated date of completion of the Phase 1 clinical trial as defined in the agreement, which was initially estimated to be 17 months, and for the other

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potential DOT1L product candidates is from contract inception through the estimated date of IND effectiveness for a licensed compound from the other potential DOT1L product candidates, which was initially estimated to be 37 months. Revenue recognized in the year ended December 31, 2013 reflected the Company s plan to complete the ongoing Phase 1 study of EPZ-5676 in 2014. Revenue recognized in the year ended December 31, 2014 reflects the addition of a 54mg/m^2/day expansion cohort to the Phase 1 study of EPZ-5676, which is expected to enroll throughout 2015. Accordingly, the Company expects to recognize the remaining deferred revenue related to this deliverable, of approximately $0.3 million as of December 31, 2014, through December 31, 2015. Revenue recognized in the year ended December 31, 2014 also reflects the Company s decision to discontinue development efforts on other potential DOT1L product candidates. Accordingly, the Company recognized the $4.6 million remaining balance of arrangement consideration allocated to other potential DOT1L product candidates in the year ended December 31, 2014.

The Company s estimates of these revenue recognition periods are subject to the risks inherent in drug discovery. The Company will continue to re-assess the periods over which such services will be provided to consider any revisions to the estimated date of completion of the Phase 1 clinical trial for EPZ-5676.

Available target licenses and related research services

The Company allocated $81.4 million to the available target licenses and related research services. Because the targets which Celgene could select would be at a similar stage of development, the Company expects to recognize, on a selected target-by-selected target basis, an equal amount of the allocated arrangement consideration over the period beginning when each available target is selected through the estimated date of IND effectiveness for each selected target. No available targets have been selected as of December 31, 2014.

If Celgene exercises its option to extend the initial three year option period for one additional year, then the Company would be entitled to a significant option term extension payment. To the extent that Celgene extends the option period for an additional year, the Company would, at the time of any exercise of the extension option, allocate such payment based on its expectation as to the number of available targets that might be selected during the additional one year period and defer any option term extension payment until such time as a license to an available target was delivered.

Remaining eligible milestone payments under this arrangement consist of up to $135.0 million in clinical development and regulatory milestones for DOT1L and up to $165.0 million in option exercise fees and clinical development and regulatory milestones for each available target. The Company evaluated the milestones under this arrangement and believes that the milestones are substantive given the significant uncertainty as to the outcome of the substantial research efforts to be performed by the Company in order to achieve the milestones. Therefore, the milestones will be recognized as collaboration revenue upon achievement.

On a licensed target-by-licensed target basis, the Company has the right, in its sole discretion, to opt-out of further participation in and co-funding of development, other than specified costs necessary to complete development activities in process at the time the Company exercises its opt-out right. The Company can exercise its opt-out right at specified times before the scheduled initiation of the first pivotal clinical trial or before the estimated date of filing of the first new drug application for an HMT inhibitor directed to the licensed target or any time after regulatory approval of an HMT inhibitor directed to the licensed target. Following an opt-out, the Company is no longer required to co-fund global development for the applicable program, and it is obligated to grant Celgene an exclusive license to HMT inhibitors directed to the applicable target in the United States. Following its opt-out, if any, the Company will

be eligible to receive specified milestone payments and royalties based on net product sales in the United States of HMT inhibitors directed to the licensed target. The Company would recognize revenue related to the milestones and royalties on any transferred target when earned, as the Company would have no performance obligations after exercising its opt-out. Based on the terms of the opt-out,

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the Company may not exercise its opt-out rights prior to completing its performance obligations under any of the deliverables identified at the inception of the agreement. None of the upfront cash payments, option exercise payments or option extension payment are subject to refund as a result of the opt-out provisions.

Agreement Termination Rights. The Company s agreement with Celgene will expire on a product-by-product and country-by-country basis on the date of the expiration of the applicable royalty term with respect to each licensed product in each country and in its entirety upon the expiration of all applicable royalty terms for all licensed products in all countries. The royalty term for each licensed product in each country is the period commencing with first commercial sale of the applicable licensed product in the applicable country and ending on the latest of expiration of specified patent coverage, specified regulatory exclusivity or a specified period of years.

Celgene has the right to terminate the agreement with respect to one or more licensed targets or in its entirety, upon 60 or 120 days notice depending on the timing of such termination. The agreement may also be terminated in its entirety during the option period, and on a licensed target-by-licensed target basis after the option term, by either Celgene or the Company in the event of a material breach by the other party, in the event the other party, or an affiliate or sublicensee of the other party, participates or actively assists in a legal challenge to specified patent(s) of the terminating party or in the event the other party becomes subject to specified bankruptcy, insolvency or similar circumstances. There are no cancellation, termination or refund provisions in this arrangement that contain material financial consequences to the Company.

Eisai

Overview. In April 2011, the Company entered into a collaboration and license agreement with Eisai under which the Company granted Eisai an exclusive worldwide license to its small molecule HMT inhibitors directed to the EZH2 HMT, including the Company s product candidate EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States. Additionally, as part of the research collaboration the Company agreed to provide research and development services related to the licensed compounds through December 31, 2014 (the research period).

Under the terms of the agreement, the Company recorded a $3.0 million upfront payment, $7.0 million in preclinical research and development milestone payments, a $6.0 million clinical development milestone achieved in June 2013 and $22.7 million for research and development services through December 31, 2014. The Company is eligible to earn up to $25.0 million in additional clinical development milestone payments, including substantive milestone payments of up to $10.0 million, up to $55.0 million in regulatory milestone payments and up to $115.0 million in sales-based milestone payments. The Company is also eligible to receive royalties at a percentage in the mid-single digits on any net product sales outside of the United States and at a percentage from the mid-single digits to low double-digits on any product sales in the United States, subject to reduction in specified circumstances. Due to the uncertainty of pharmaceutical development and the high historical failure rates generally associated with drug development, the Company may not receive any additional milestone payments or royalty or profit share payments from Eisai. The next potential milestone payment that the Company might be entitled to receive under this agreement is a $10.0 million substantive milestone for the initiation of the Phase 2 portion of the Phase 1/2 clinical trial.

Through December 31, 2014, the Company recorded a total of $38.7 million in cash and accounts receivable related to this agreement. During the years ended December 31, 2014, 2013 and 2012, the Company recognized $6.3 million, $14.3 million and $11.5 million of collaboration revenue, respectively, related to this agreement. As of December 31, 2014, the Company had no remaining deferred revenue related to this agreement.

Agreement Structure and Accounting Analysis. The significant deliverables of this multiple-element revenue arrangement were determined to be the worldwide license rights to EZH2 compounds and the research and development services. At the inception of the arrangement, the Company concluded that the license cannot be

used for its intended purpose without the highly specialized skills and know-how relating to HMT inhibitors that is only available from the Company. The Company has therefore concluded that the delivered exclusive license lacked standalone value apart from the research and development services due to the limited economic benefit that Eisai would derive from the license if it did not obtain the Company s research and development services. Consequently, the Company is accounting for these deliverables as a combined unit of accounting and is recognizing the $3.0 million upfront payment received from Eisai related to this agreement ratably over the research period. Funding for research and development services is being recognized as collaboration revenue in the period in which the related research and development costs are incurred.

Upon the execution of this agreement, in addition to the $3.0 million upfront payment, the Company received another $3.0 million payment for a preclinical research and development milestone that was deemed to have already been achieved. Because this initial $3.0 million milestone was certain at the execution of the agreement and did not require substantive effort by the Company, it has been combined with the upfront payment and is being recognized as collaboration revenue ratably over the research period. The Company has evaluated the remaining milestones under this agreement and determined that the milestones through human proof-of-concept are substantive, given the significant uncertainty as to the outcome of the substantial research efforts to be performed by the Company in order to achieve the milestones. Therefore, payments for the achievement of any milestones through human proof-of-concept are being recognized as revenue upon achievement, assuming all other revenue recognition criteria are met. In the first quarter of 2012, the Company commenced a study for the lead product candidate, EPZ-6438, representing the first substantive research milestone under this arrangement. Accordingly, the $4.0 million milestone payment received from Eisai upon the achievement of this preclinical research and development milestone was recognized as revenue upon achievement. In the second quarter of 2013, the first patient was enrolled in the Phase 1/2 clinical trial of EPZ-6438, representing the first substantive clinical development milestone under this arrangement. Accordingly, the $6.0 million milestone payment due from Eisai upon the achievement of this milestone was recognized as revenue upon achievement. Evaluation of milestones after human proof-of-concept will be dependent upon the Company s decision to participate or not participate in the profit share and co-commercialization arrangement with Eisai.

Eisai solely funds all research, development and commercialization costs for licensed compounds, except for the cost obligations that the Company will undertake if it exercises its opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States. The Company s opt-in right to co-commercialize and share profits may be exercised on a licensed compound-by-licensed compound basis prior to the end of a specified period following Eisai s provision to the Company of specified information following the licensed compound s achievement of clinical proof-of-concept. If the Company exercises its opt-in right as to a licensed compound, the licensed compound becomes a shared product as to which: (i) Eisai s obligation to pay royalties to the Company as to such shared product in the United States will terminate; (ii) Eisai and the Company will share in net profits or losses with respect to such shared product in the United States; (iii) 25.0% of specified past development costs will become creditable by Eisai against future milestone payments or royalties due to the Company, subject to certain limitations specified in the agreement; (iv) all subsequent milestones that become payable by Eisai after the Company exercises its opt-in right will be decreased by 50.0% in certain circumstances; and (v) Eisai and the Company will share equally in subsequent development costs allocated to the United States. All previous milestones earned by the Company are not subject to reimbursement.

If the Company elects to exercise its opt-in right, (i) future research and development costs for the shared product would be recorded on a collaboration basis, in which case the Company s 50.0% share of the costs would be recorded as research and development expense and (ii) the recognition of future milestones may be re-evaluated. If the Company does not exercise its opt-in right, the remaining milestones will not be considered substantive, as Eisai would then control the development leading to the achievement of such milestones, which would generally be

achieved after the Company s performance obligations are complete.

Agreement Termination Rights. The Company s agreement with Eisai will remain in effect until the later of expiration of all royalty obligations under the agreement with respect to all licensed products or, if the Company

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exercises its option, until the shared product is no longer being developed or commercialized by the parties in or for the United States or the parties agreement with respect to co-commercialization and profit sharing otherwise terminates. The royalty term for each licensed product in each country, other than shared products in the United States, is the period commencing with first commercial sale of the applicable licensed product in the applicable country and ending on the latest of expiration of specified patent coverage, specified regulatory exclusivity or a specified period of years.

Eisai may terminate the agreement for its convenience in its entirety or as to one or more major market countries, as defined in the agreement, upon 90 days prior written notice to the Company. Eisai also has the right to terminate the agreement in its entirety immediately if, in good faith, it believes that it is not advisable for it to continue to develop or commercialize the licensed products from a scientific, regulatory or ethical perspective as a result of a bona fide serious safety issue regarding the use of any licensed product. The agreement may also be terminated by either party in the event of a material breach by the other party or by the Company in the event Eisai, or an affiliate or sublicensee, participates or actively assists in an action or proceeding challenging or denying the validity of one of the Company s patents. There are no cancellation, termination or refund provisions in this arrangement that contain material financial consequences to the Company.

In March 2015, the Company entered into an amended and restated collaboration and license agreement with Eisai, under which the Company reacquired worldwide rights, excluding Japan, to its EZH2 program, including EPZ-6438. Refer to Footnote 14, *Subsequent Event*.

GlaxoSmithKline

Overview. In January 2011, the Company entered into a collaboration and license agreement with GSK to discover, develop and commercialize novel small molecule HMT inhibitors directed to available targets from the Company s platform. Under the terms of the agreement, the Company granted GSK the option to obtain exclusive worldwide license rights to HMT inhibitors directed to up to three targets. GSK selected and licensed three targets and the term during which it was entitled to select targets expired in July 2012. In March 2014, the Company and GSK amended certain terms of this agreement for the third target, revising the license terms with respect to candidate compounds and amending the corresponding financial terms, including reallocating milestone payments and increasing royalty rates as to the third target. In connection with the execution of this amendment, the Company recorded a $3.0 million upfront payment.

Under the terms of the agreement, the Company recorded a $20.0 million upfront payment, a $3.0 million payment upon the execution of the March 2014 agreement amendment, $6.0 million of fixed research funding, $15.0 million of preclinical research and development milestone payments and $9.0 million for research and development services through December 31, 2014. The Company is eligible to receive up to $18.0 million in additional substantive preclinical research and development milestone payments, up to $109.0 million in clinical development milestone payments, up to $275.0 million in regulatory milestone payments and up to $218.0 million in sales-based milestone payments. In addition, GSK is required to pay the Company royalties at percentages between the mid-single digits to the low double-digits, on a licensed product-by-licensed product basis, on worldwide net product sales, subject to reduction in certain specified circumstances. Due to the uncertainty of pharmaceutical development and the high historical failure rates generally associated with drug development, the Company may not receive any additional milestone payments or royalty payments from GSK. Due to the varying stages of development of each licensed target, the Company is not able to determine the next milestone that might be achieved under this agreement, if any.

Through December 31, 2014, the Company recorded a total of $53.0 million in cash and accounts receivable under the GSK agreement. During the years ended December 31, 2014, 2013 and 2012, the Company recognized $25.5 million,

$16.4 million and $9.7 million of collaboration revenue, respectively, related to this agreement. As of December 31, 2014, the Company had deferred revenue of $1.4 million related to this agreement.

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Agreement Structure and Accounting Analysis. For each selected target in the collaboration, the Company was primarily responsible for research until the earlier of the selection of a development candidate for the target or January 8, 2015, and GSK is solely responsible for subsequent development and commercialization. The Company was responsible for providing research and development services with respect to the selected targets pursuant to agreed-upon research plans during a research term that ended in January 2015, or earlier if a target reaches development candidate selection, at which point GSK is solely responsible for development and commercialization. GSK provided a fixed amount of research funding during the second and third years of the research term. GSK was obligated to provide research funding equal to 100.0% of research and development costs, subject to specified limitations, during the fourth year of the research term.

The significant deliverables of this multiple-element revenue arrangement were determined to be exclusive licenses to three targets and corresponding research services for each target. At the inception of the arrangement, the Company concluded that the licenses cannot be used for their intended purpose without the highly specialized skills and know-how relating to HMT inhibitors that is only available from the Company. The Company therefore concluded that the target licenses lacked standalone value apart from the related research services due to the limited economic benefit that GSK would derive from the licenses if it did not obtain the Company s research services and due to the lack of transferability of the exclusive licenses. The Company is therefore accounting for these deliverables, on a license-by-license basis, as a combined unit of accounting. The Company concluded that the option to secure licenses for three targets was not substantive, as the Company was not at risk with regard to GSK exercising its option due to the size of the upfront payment and the research funding commitment. Since the option was not considered substantive, the Company considered the licenses to be deliverables at the inception of the agreement. While the Company concluded that there were three units of accounting, each consisting of a license to a target and the research and development services related to that target, because the targets were at similar stages of development at the inception of the agreement, had equal probabilities of success and the research services in each unit of accounting were initially expected to be performed concurrently on a ratable basis over the research term, the Company allocated the arrangement consideration equally across the three targets. Accordingly, the $30.0 million of allocable arrangement consideration, consisting of the $20.0 million upfront payment, $4.0 million in milestone payments achieved during the selection term and the $6.0 million fixed research funding, is being recognized as collaboration revenue, on a target-by-target basis, ratably from the conclusion of the selection term, in July 2012, through the end of the research term, or earlier if a target reaches development candidate selection, at which point GSK is solely responsible for development and commercialization. In December 2013, the Company and GSK agreed to the selection of a development candidate for one of the three targets under the agreement, earning the Company a $4.0 million milestone payment and reducing the period over which the Company is recognizing revenue for this target by nine months. Accordingly, the Company recognized the remaining deferred revenue related to this target during the first quarter of 2014. As to this target, GSK is solely responsible for subsequent development and commercialization.

The $3.0 million upfront payment received in connection with the March 2014 amendment was allocated equally to the remaining two targets for which the Company was actively providing research and development services, as these remaining two targets were at similar stages of development, had equal probabilities of success and the remaining research services were expected to be performed concurrently on a ratable basis over the research term. The $3.0 million is being recognized as collaboration revenue, on a target-by-target basis, ratably from the execution of the amendment, in March 2014, through the end of the research term. In the fourth quarter of 2014, the Company agreed to perform additional preclinical research and development studies related to the third target under the agreement, which extends the research term for this target through June 2015. Accordingly, the Company expects to recognize the remaining deferred revenue related to this deliverable, of approximately $1.2 million as of December 31, 2014, through June 30, 2015.

During the selection term, the Company received $4.0 million upon the achievement of preclinical research and development milestones which required effort in the form of research activities by the Company and was not certain to be achieved at the execution of the agreement. However, because GSK had the right to drop a target

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and select a replacement target at any point during the selection term, the Company, in such a case, would have been obligated to perform the validation work for a replacement target. Consequently, this $4.0 million in preclinical research and development milestones has been combined with the upfront payment and fixed research funding and is being recognized as collaboration revenue ratably over the research term. The Company has evaluated the remaining milestones under this agreement and determined that the milestones through development candidate selection are substantive given the significant uncertainty as to the outcome of the substantial research efforts to be performed by the Company in order to achieve the milestones and will be recognized as revenue upon achievement, assuming all other revenue recognition criteria are met. The milestones after development candidate selection are not considered substantive because the Company does not contribute effort to the achievement of such milestones, which would generally be achieved after the research term. In 2014, the Company achieved $3.0 million in preclinical research and development milestones upon the selection of lead candidates for the second and third targets under the agreement. In the fourth quarter of 2013, the Company achieved a $4.0 million preclinical research and development milestone upon the selection of a development candidate for one of the three targets under the agreement. In the third quarter of 2012, the Company achieved two additional preclinical research and development milestones and received payments totaling $4.0 million. The preclinical research and development milestones achieved in 2014, 2013 and 2012 required effort in the form of research activities by the Company and were not certain to be achieved at the execution of the agreement. Additionally, at the time of the achievement of these preclinical research and development milestones, the selection term had expired and, as such, these milestones were determined to be substantive, and the milestones were recognized as revenue upon achievement.

Under the agreement, the Company also granted GSK the option to acquire up to 10.0% of the securities issued in its next qualified venture capital financing, if any, which meets conditions set forth in the agreement. The Company is not obligated to undertake any such financing and one has not occurred since the Company granted GSK this right.

Agreement Termination Rights. The agreement will expire on a product-by-product and country-by-country basis on the date of the expiration of the applicable royalty term with respect to each licensed product in each country and in its entirety upon the expiration of all applicable royalty terms for all licensed products in all countries. The royalty term for each licensed product in each country is the period commencing with the first commercial sale of the applicable licensed product in the applicable country and ending on the later of expiration of specified patent coverage or a specified period of years.

GSK has the right to terminate the agreement at any time with respect to one or more selected targets or in its entirety, upon 90 days prior written notice to the Company. The agreement may also be terminated with respect to one or more selected targets or in its entirety by either GSK or the Company in the event of a material breach by the other party. The agreement may be terminated with respect to selected targets by the Company in the event GSK, or an affiliate or sublicensee of GSK, participates or actively assists in a legal challenge to one of the patents exclusively licensed to GSK under the agreement with respect to the applicable target.

The Leukemia & Lymphoma Society

In June 2011, The Leukemia & Lymphoma Society (LLS) and the Company entered into an arrangement to support preclinical and Phase 1 development of the Company s DOT1L-targeted HMT inhibitors for mixed lineage leukemia. Under this arrangement, LLS committed to provide up to $7.5 million in development milestone-based payments to the Company to support the program through Phase 1 clinical trials in exchange for defined future royalties and transfer payments.

The Company received $2.6 million in funding from LLS through May 2012, including upfront payments of $1.1 million and a milestone payment of $1.5 million received in March 2012 for a clinical candidate declaration. The

Company paid LLS $0.4 million as a transfer payment relating to the Company s entry into its collaboration agreement with Celgene.

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In June 2012, the Company exercised its option to terminate this arrangement and repaid LLS $0.8 million, representing the portion of the upfront payment that had not yet been spent on research. Upon the Company s exercise of its termination option, LLS elected to receive a termination fee equal to the aggregate amount of funding provided by LLS through the termination date, less any amounts previously repaid. Accordingly, the Company did not recognize any revenue in 2012 related to either the LLS upfront payment or the milestone achieved. Except for certain acceleration provisions described in the agreement, the termination fee was payable in three equal annual installments plus 10.0% interest. Accordingly, the Company had accrued $2.0 million as of December 31, 2012, representing the present value of its obligation to LLS in connection with the termination of this agreement. Upon the closing of the Company s IPO, the Company s obligation to LLS was accelerated, and, as a result, this termination obligation was paid in full in June 2013. Refer to *Celgene* for additional information regarding the collaboration agreement with Celgene.

Roche

In December 2012, Eisai and the Company entered into an agreement with Roche Molecular Systems, Inc. (Roche) under which Eisai and the Company are funding Roche s development of a companion diagnostic to identify patients who possess certain point mutations in EZH2. In October 2013, this agreement was amended to include additional point mutations in EZH2. The development costs under the agreement with Roche will be the responsibility of Eisai until such time, if any, as the Company exercises its opt-in right under its collaboration agreement with Eisai. Under the terms of the amended agreement, Eisai agreed to pay Roche defined milestone payments of up to $21.5 million to develop and to make commercially available the companion diagnostic. As a result, the cost of the companion diagnostic agreement prior to the Company s potential future exercise of its opt-in right under the Eisai collaboration will not be reflected in the Company s consolidated statements of operations and comprehensive loss. If the Company exercises its opt-in right to co-develop, co- commercialize and share profits in the United States as to EPZ-6438, Eisai will be entitled to offset up to 25.0% of the funding amount it has previously paid to Roche against future milestone payments and royalties that Eisai may be obligated to pay to the Company under the Eisai collaboration and license agreement, and the Company will become obligated to fund up to half of the defined milestones that remain payable to Roche as of the time the Company opts-in.

The Company s agreement with Roche will expire when Eisai or the Company are no longer developing or commercializing the Company s product directed to EZH2. Eisai and the Company may terminate the agreement by giving Roche 90 days written notice if the Company and Eisai discontinue development and commercialization of the Company s product directed to EZH2 or determine, in conjunction with Roche, that the diagnostic is not needed for use with the Company s product directed to EZH2. Either Eisai and the Company or Roche may also terminate the agreement in the event of a material breach by the other party, in the event of material changes in circumstances that are contrary to key assumptions specified in the agreement or in the event of specified bankruptcy or similar circumstances. Under specified termination circumstances, Roche may become entitled to specified termination fees, which Eisai and the Company would be obligated to bear in the same manner that they bear the funding amounts payable to Roche.

In March 2015, the Company entered into an amended and restated collaboration and license agreement with Eisai, under which the Company reacquired worldwide rights, excluding Japan, to its EZH2 program, including EPZ-6438. Refer to Footnote 14, *Subsequent Event*.

Abbott

In February 2013, the Company entered into an agreement with Abbott Molecular Inc. (Abbott) under which the Company agreed to fund Abbott s development of a companion diagnostic to identify patients with the mixed lineage

leukemia (MLL-r) genetic alteration targeted by the Company s EPZ-5676 product candidate. Under the terms of the agreement, the Company paid Abbott an upfront payment of $0.9 million upon the execution of

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the agreement, and agree dto make aggregate milestone-based development payments of up to $6.0 million and to reimburse Abbott for specified costs not to exceed $0.9 million. In October 2014, the Company voluntarily terminated this agreement with Abbott, discontinuing development of this proposed companion diagnostic. The termination of this agreement did not have a material impact on the Company s financial statements.

10. Employee Benefit Plans

Stock Incentive Plans

In 2008, the Company s Board of Directors adopted and the Company s stockholders approved the 2008 Stock Incentive Plan (the 2008 Plan), which provided for the granting of certain defined stock incentive awards to employees, members of the Company s Board of Directors and non-employee consultants, advisors or other service providers. In April 2013, the Company s Board of Directors adopted and the Company s stockholders approved the 2013 Stock Incentive Plan (the 2013 Plan), which provides for the granting of certain defined stock incentive awards to employees, members of the Company s Board of Directors and non-employee consultants, advisors or other service providers. Upon the closing of the IPO, the Company ceased granting stock incentive awards under the 2008 Plan, and any shares of common stock that remained available for grant under the 2008 Plan upon the closing of the IPO became available for issuance under the 2013 Plan. In addition, any shares of common stock subject to awards under the 2008 Plan that expire, terminate, or are otherwise surrendered, canceled, forfeited or repurchased without having been fully exercised or resulting in any common stock being issued will become available for issuance under the 2013 Plan. Additionally, in May 2013, the Company s Board of Directors adopted and the Company s stockholders approved the 2013 Employee Stock Purchase Plan (the 2013 ESPP), which provides participating employees the option to purchase shares of the Company s common stock at defined purchase prices over six month offering periods.

Stock incentive awards granted under the 2013 Plan may be incentive stock options, non-qualified stock options, restricted stock awards, restricted stock units, stock appreciation rights and other stock-based awards under the applicable provisions of the Internal Revenue Code. Incentive stock options are granted only to employees of the Company. Non-qualified stock options and restricted stock may be granted to officers, employees, consultants, advisors and other service providers. Incentive and non-qualified stock options and restricted stock granted to employees generally vest over four years, with 25.0% vesting upon the one-year anniversary of the grant and the remaining 75.0% vesting monthly over the following three years. Non-qualified stock options granted to consultants and other non-employees generally vest over the period of service to the Company. Incentive and non-qualified stock options expire ten years from the date of grant. Initial non-qualified stock options granted to members of the Company s Board of Directors generally vest over the recipient s term of Board service. Annual non-qualified stock options granted to members of the Company s Board of Directors vest on the one-year anniversary of the grant.

Stock-Based Compensation

Total stock-based compensation related to stock options, restricted stock and the employee stock purchase plan was $6.9 million, $2.8 million and $0.7 million in the years ended December 31, 2014, 2013 and 2012, respectively.

Stock-based compensation expense is classified in the consolidated statements of operations and comprehensive loss as follows:

	Year Ended December 31,		
	2014	2013	2012

		(In thousands)	
Research and development	$ 3,299	$ 1,072	$ 448
General and administrative	3,565	1,747	241
Total	$ 6,864	$ 2,819	$ 689

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Stock Options

The Company uses the Black-Scholes option-pricing model to measure the fair value of stock option awards. Key assumptions used in this pricing model on the date of grant for options granted to employees are as follows:

	Year Ended December 31,		
	2014	2013	2012
Risk-free interest rate	1.6%	1.0%	0.7%
Expected life of options	6.0 years	6.0 years	6.0 years
Expected volatility of underlying stock	92.1%	94.7%	98.9%
Expected dividend yield	0.0%	0.0%	0.0%

Key assumptions used in this pricing model on the date of grant for options granted to non-employees in 2013 are as follows:

	Year Ended December 31, 2013
Risk-free interest rate	3.0%
Expected life of options	10.0 years
Expected volatility of underlying stock	86.3%
Expected dividend yield	0.0%

There were no stock option awards granted to non-employees in 2014 or 2012.

The risk-free interest rate is based upon the U.S. Treasury yield curve in effect at the time of grant, with a term that approximates the expected life of the option. The Company calculates the expected life of options granted to employees using the simplified method as the Company has insufficient historical information to provide a basis for estimate. The Company determines the expected volatility based on the historical volatility of a peer group of comparable publicly traded companies with product candidates in similar stages of development to the Company s product candidates. The Company has applied an expected dividend yield of 0.0% as the Company has not historically declared a dividend and does not anticipate declaring a dividend during the expected life of the options.

The following is a summary of stock option activity for the year ended December 31, 2014:

	Number of Options	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding at December 31, 2013	4,728,503	$ 3.13		
Granted	876,385	28.88		

Exercised	(2,239,643)	1.22			
Forfeited or expired	(405,739)	14.32			
Outstanding at December 31, 2014	2,959,506	$ 10.66	6.8	$	33,538
Exercisable at December 31, 2014	1,393,210	$ 2.70	5.5	$	23,112

During the years ended December 31, 2014, 2013 and 2012, the Company granted stock options to purchase an aggregate of 876,385 shares, 1,514,828 shares and 766,297 shares of its common stock, including, in 2013, a stock option to purchase 10,000 shares of its common stock granted to a non-employee, at weighted average grant date fair values per option share of $21.73, $7.85 and $1.83, respectively. The total grant date fair value of options that vested during the years ended December 31, 2014, 2013 and 2012 was $4.9 million, $0.6 million and $0.6 million, respectively. The aggregate intrinsic value of stock options exercised was $59.4 million in 2014, $2.1 million in 2013 and insignificant during 2012.

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As of December 31, 2014, there was $16.5 million of unrecognized stock-based compensation related to stock options that are expected to vest. These costs are expected to be recognized over a weighted average remaining vesting period of 2.5 years.

Restricted Stock

The following is a summary of restricted stock activity for the year ended December 31, 2014:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Outstanding at December 31, 2013	5,555	$ 0.60
Vested	(5,555)	0.60
Outstanding at December 31, 2014		$

During the year ended December 31, 2012 the Company granted 33,333 shares of restricted stock with a weighted-average grant date fair value per share of $0.60. The Company did not grant any restricted stock during the years ended December 31, 2014 or 2013. The intrinsic value of restricted stock that vested during the years ended December 31, 2014, 2013 and 2012 was $0.1 million, $0.4 million and $0.1 million, respectively.

401(k) Savings Plan

The Company has a defined contribution 401(k) savings plan (the 401(k) Plan). The 401(k) Plan covers substantially all employees, and allows participants to defer a portion of their annual compensation on a pretax basis. Company contributions to the 401(k) Plan may be made at the discretion of the Board of Directors. During the year ended December 31, 2014, the Company implemented a matching contribution to the 401(k) Plan, matching 50% of an employee s contribution up to a maximum of 3% of the participant s compensation. Company contributions to the 401(k) plan totaled $0.2 million in the year ended December 31, 2014.

11. Loss per Share

As described in Note 2, *Summary of Significant Accounting Policies*, the Company computes basic and diluted earnings (loss) per share using a methodology that gives effect to the impact of outstanding participating securities (the two-class method)

Basic and diluted loss per share allocable to common stockholders are computed as follows:

	Year Ended December 31,		
	2014	2013	2012
	(In thousands except per share data)		
Net loss	$ (55,005)	$ (3,483)	$ (702)
		264	486

Less: accretion of redeemable convertible preferred stock to redemption value			
Loss allocable to common stockholders	$ (55,005)	$ (3,747)	$ (1,188)
Weighted average shares outstanding	33,027	17,049	1,645
Basic and diluted loss per share allocable to common stockholders	$ (1.67)	$ (0.22)	$ (0.72)

In June 2013, the Company issued 5,913,300 shares of common stock in connection with its IPO and 20,633,046 shares of common stock in connection with the automatic conversion of its Preferred Stock upon the closing of the IPO. In February 2014, the Company issued an additional 3,673,901 shares of common stock in connection

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with a public offering. The issuance of these shares contributed to a significant increase in the Company s shares outstanding, to 34,426,012 shares as of December 31, 2014, and in the weighted average shares outstanding for the years ended December 31, 2014 and 2013 when compared to the comparable prior year periods and is expected to continue to impact the year-over-year comparability of the Company s (loss) earnings per share calculations through 2015.

The following common stock equivalents were excluded from the calculation of diluted loss per share allocable to common stockholders because their inclusion would have been antidilutive. The redeemable convertible preferred stock amounts shown in the table are on a common stock equivalent basis as a result of the reverse stock split described in Note 1, *The Company*:

	Year Ended December 31,		
	2014	2013	2012
	(In thousands)		
Redeemable convertible preferred stock			20,633
Stock options	2,960	4,729	3,493
Unvested restricted stock		6	22
Shares issuable under employee stock purchase plan	6	48	
	2,966	4,783	24,148

12. Related Party Transactions

In connection with its entry into the collaboration agreement with Celgene, on April 2, 2012, the Company sold Celgene 9,803,922 shares of its Series C Preferred Stock. As a result of this transaction, Celgene owned 12.5% of the Company s fully diluted equity as of December 31, 2012. Refer to Note 9, *Collaborations*, for additional information regarding this collaboration agreement. In the second quarter of 2013, in connection with the IPO, Celgene made an additional investment in the Company, acquiring an additional 66,666 shares of the Company s common stock. Additionally, as a result of the IPO, Celgene s shares of Series C Preferred Stock automatically converted to common stock of the Company at a one-for-three ratio, collectively resulting in Celgene owning 3,334,640 shares of the Company s common stock as of December 31, 2013. In the first quarter of 2014, in connection with the Company s public offering of common stock, Celgene made an additional investment in the Company, acquiring an additional 340,000 shares of the Company s common stock, maintaining an ownership percentage representing 9.8% of the Company s fully diluted equity and 10.7% of the voting interests of the Company as of December 31, 2014.

Under the Celgene collaboration agreement, the Company recognized $9.6 million, $37.8 million and $23.9 million of collaboration revenue in the years ended December 31, 2014, 2013 and 2012, respectively, and as of December 31, 2014 and December 31, 2013, had recorded $21.7 million and $31.3 million of deferred revenue related to the Celgene collaboration arrangement, respectively. Additionally, in the years ended December 31, 2014 and 2013, the Company recorded $3.9 million and $1.9 million, respectively, in global development co-funding from Celgene. As of December 31, 2014 and 2013, the Company had accounts receivable of $1.1 million and $26.2 million, respectively, related to this collaboration arrangement.

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13. Unaudited Quarterly Results

The results of operations on a quarterly basis for the years ended December 31, 2014 and 2013 are set forth below:

	Quarter Ended			
	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014
Collaboration revenue	$ 13,391	$ 9,494	$ 8,177	$ 10,349
Operating expenses:				
Research and development	15,347	17,499	22,244	20,505
General and administrative	4,956	5,306	5,669	4,935
Total operating expenses	20,303	22,805	27,913	25,440
Operating loss	(6,912)	(13,311)	(19,736)	(15,091)
Other income, net	28	38	41	47
Loss before income taxes	(6,884)	(13,273)	(19,695)	(15,044)
Income tax expense (benefit)		113	5	(9)
Net loss	$ (6,884)	$ (13,386)	$ (19,700)	$ (15,035)
Loss per share allocable to common stockholders:				
Basic	$ (0.22)	$ (0.40)	$ (0.58)	$ (0.44)
Diluted	$ (0.22)	$ (0.40)	$ (0.58)	$ (0.44)
Weighted average shares outstanding:				
Basic	30,959	33,156	33,676	34,273
Diluted	30,959	33,156	33,676	34,273

	Quarter Ended			
	March 31, 2013	June 30, 2013	September 30, 2013	December 31, 2013
Collaboration revenue	$ 8,882	$ 14,839	$ 8,444	$ 36,317
Operating expenses:				
Research and development	13,361	13,937	14,584	15,685
General and administrative	2,998	3,079	3,587	4,378
Total operating expenses	16,359	17,016	18,171	20,063
Operating (loss) income	(7,477)	(2,177)	(9,727)	16,254
Other (expense) income, net	(20)	(35)	23	25
(Loss) income before income taxes	(7,497)	(2,212)	(9,704)	16,279
Income tax expense				349
Net (loss) income	$ (7,497)	$ (2,212)	$ (9,704)	$ 15,930

Less: accretion of redeemable convertible preferred stock to redemption value	157	107		
Less: income allocable to participating securities				4
(Loss) income allocable to common stockholders	$ (7,654)	$ (2,319)	$ (9,704)	$ 15,926
(Loss) earnings per share allocable to common stockholders:				
Basic	$ (4.27)	$ (0.25)	$ (0.34)	$ 0.56
Diluted	$ (4.27)	$ (0.25)	$ (0.34)	$ 0.52
Weighted average shares outstanding:				
Basic	1,791	9,146	28,406	28,434
Diluted	1,791	9,146	28,406	30,901

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14. Subsequent Event

In March 2015, the Company entered into an amended and restated collaboration and license agreement with Eisai, under which the Company reacquired worldwide rights, excluding Japan, to its EZH2 program, including EPZ-6438. Under the amended and restated collaboration agreement, the Company will be responsible for global development, manufacturing and commercialization outside of Japan of EPZ-6438 and any other EZH2 product candidates, with Eisai retaining development and commercialization rights in Japan, as well as a right to elect to manufacture EPZ-6438 and any other EZH2 product candidates in Japan. Under the original collaboration and license agreement, the Company had granted Eisai an exclusive worldwide license to its small molecule HMT inhibitors directed to EZH2, including EPZ-6438, while retaining an opt-in right to co-develop, co-commercialize and share profits with Eisai as to licensed products in the United States.

Upon the execution of the amended and restated collaboration and license agreement, the Company agreed to pay Eisai a $40.0 million upfront payment. The Company also agreed to pay Eisai up to $20.0 million in clinical development milestone payments, up to $50.0 million in regulatory milestone payments and royalties at a percentage in the mid-teens on worldwide net sales of any EZH2 product, excluding net sales in Japan. The Company is eligible to receive from Eisai royalties at a percentage in the mid-teens on net sales of any EZH2 product in Japan.

Under the original agreement, Eisai was solely responsible for funding all research, development and commercialization costs for licensed compounds. Under the amended agreement, the Company will be solely responsible for funding global development and commercialization costs for EZH2 compounds outside of Japan, including $8.5 million of the remaining milestone payments due under the Roche companion diagnostic agreement, and Eisai will be solely responsible for funding Japan-specific development and commercialization costs for EZH2 compounds. In connection with the amendment and restatement of the collaboration and license agreement with Eisai, the Company and Eisai have agreed upon a transition to the Company of ongoing development and manufacturing activities being conducted by or on behalf of Eisai.

In the event that the Company seeks to license rights to a third party to develop or commercialize an EZH2 product in any country in Asia other than Japan, Eisai has a limited right of first negotiation for such rights. In the event that the Company is awarded a priority review voucher from the FDA with respect to an EZH2 product, Eisai is entitled to specified compensation if the Company uses the voucher on a non-EZH2 program or sells the voucher to a third party.

The Company s amended and restated collaboration and license agreement with Eisai will remain in effect until the expiration of all payment obligations under the agreement with respect to all licensed products. The royalty term for each licensed product in each country commences on the first commercial sale of the applicable licensed product in the applicable country and ends on the latest of expiration of specified patent coverage, expiration of specified regulatory exclusivity or ten years following the first commercial sale. The Company or Eisai may terminate the agreement for convenience as to their respective territories, upon 90 days prior written notice. The agreement will also terminate as to the Company s territory if the Company ceases all development and commercialization activities for the United States and specified major countries in Europe and as to Eisai s territory if Eisai ceases all development and commercialization activities for Japan. The agreement may also be terminated by either party in the event of an uncured material breach by the other party or by the Company in the event Eisai, or an affiliate or sublicensee, participates or actively assists in an action or proceeding challenging or denying the validity of one of the Company s patents. If the Company terminates the agreement for its convenience, the agreement terminates as a result of the Company s cessation of development and commercialization activities or Eisai terminates the agreement for the Company s uncured material breach, Eisai may elect to have worldwide development and commercialization rights revert to Eisai, and if Eisai so elects, Eisai will be required to pay the Company specified royalties on net sales of the licensed products and reimburse certain development expenses incurred by the Company. If Eisai terminates the

agreement for its convenience, the agreement terminates as a result of Eisai s cessation of development and commercialization activities or the Company terminates the agreement for Eisai s uncured material breach or Eisai s, or its affiliate s or sublicensee s, participation in, or assistance with, an action or proceeding challenging or denying the validity of one of the Company s patents, Japanese development and commercialization rights to the licensed products revert to the Company, and the Company will be required to pay Eisai specified royalties on net sales of licensed products in Japan.