UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2015

OR

o **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 001-37620

KURA ONCOLOGY, INC.

(Exact name of Registrant as specified in its Charter)

Delaware	**61-1547851**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
11119 North Torrey Pines Road, Suite 125, La Jolla, CA	**92037**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (858) 500-8800

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

Title of each class	**Name of each exchange on which registered**
Common Stock, par value $0.0001 per share	The NASDAQ Global Select Market

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES ☒ NO ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definition of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	o	Accelerated filer	o
Non-accelerated filer	o (Do not check if a small reporting company)	Small reporting company	☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES o NO ☒

As of June 30, 2015, the last business day of the registrant's most recently completed second quarter, there was no established public market for the registrant's common stock.

The number of outstanding shares of the registrant's common stock as of March 11, 2016 was 21,370,560.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission, or SEC, pursuant to Regulation 14A in connection with the registrant's 2016 Annual Meeting of Stockholders, to be filed subsequent to the date hereof, are incorporated by reference into Part III of this Annual Report on Form 10-K. Such proxy statement will be filed with the SEC not later than 120 days after the conclusion of the registrant's fiscal year ended December 31, 2015.

KURA ONCOLOGY, INC.
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PART I

Forward-Looking Statements

This Annual Report on Form 10-K, or Annual Report, may include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, that relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "may," "plan," "potential," "predict," "project," "targets," "likely," "will," "would," "could," "should," "continue," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Annual Report, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other factors that may cause our actual results, level of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. The sections in this Annual Report entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" as well as other sections in this Annual Report, discuss some of the factors that could contribute to these differences. These forward-looking statements include, among other things, statements about:

- the initiation, cost, timing, progress and results of our research and development activities, clinical trials and preclinical studies;
- the early stage of products under development;
- the timing of and our ability to obtain and maintain regulatory approval of our existing product candidates, any product candidates that we may develop, and any related restrictions, limitations, and/or warnings in the label of any approved product candidates;
- our plans to research, develop and commercialize our future product candidates;
- our ability to attract collaborators with development, regulatory and commercialization expertise;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- our ability to successfully commercialize our product candidates;
- the size and growth of the markets for our product candidates and our ability to serve those markets;
- the rate and degree of market acceptance of any future products;
- the success of competing drugs that are or become available;
- government regulation;
- regulatory developments in the United States and other countries;
- the performance of our third-party suppliers and manufacturers and our ability to obtain alternative sources of raw materials;
- our ability to obtain additional financing;
- our use of cash, cash equivalents, investments and other resources;
- our expectations regarding the period during which we qualify as an emerging growth company under the Jumpstart Our Business Startups Act, or JOBS Act;
- the accuracy of our estimates regarding expenses, future revenues, capital requirements and the need for additional financing; and
- our ability to attract and retain key management, scientific or clinical personnel.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important cautionary statements in this Annual Report, particularly in the "Risk Factors" section, that we believe could cause actual

results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this Annual Report and the documents that we reference in this Annual Report, completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this Annual Report are made as of the date of this Annual Report, and we do not assume, and specifically disclaim, any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

Item 1. Business.

Overview

We are a clinical stage biopharmaceutical company discovering and developing personalized therapeutics for the treatment of solid tumors and blood cancers. We focus on the development of small molecule product candidates that target cell signaling pathways that are important to driving the progression of certain cancers. We aim to employ molecular diagnostics to identify patients with cancers who are likely to benefit from our targeted product candidates.

Advancements in cancer genetics and new molecular diagnostic tools are helping define why some patients respond to a particular therapy while other patients receive little to no clinical benefit. This new era in cancer drug discovery and development offers the potential for innovative treatments that are safer and more effective for patients with particular cancers. We aim to improve patient outcomes and contribute to the reduction in healthcare costs by matching targeted therapeutics to the patients who will derive the most benefit. We are developing drugs designed to inhibit the mutated or abnormally functioning cellular pathways that drive cancer growth and intend to pair them with molecular diagnostics to identify those patients with tumors most likely to respond to treatment.

We are developing our lead product candidate, tipifarnib, a farnesyl transferase inhibitor, in both solid tumors and blood cancers based on previously generated clinical data, preclinical data as well as our identification of potential molecular biomarkers. We in-licensed tipifarnib from Janssen Pharmaceutica NV, or Janssen, a foreign entity headquartered in Belgium and an affiliate of Johnson & Johnson, in December 2014. We initiated a Phase 2 clinical trial of tipifarnib in patients who have solid tumors with Harvey rat sarcoma viral oncogene homolog, or HRAS, mutations in May 2015, and a Phase 2 clinical trial in patients with peripheral T-cell lymphoma, or PTCL, in September 2015. We plan to initiate a Phase 2 clinical trial in patients with lower risk myelodysplastic syndromes, or MDS, in the second quarter of 2016. Tipifarnib is also currently being evaluated in an investigator sponsored Phase 2 clinical trial in patients with advanced, previously treated urothelial carcinomas that carry HRAS mutations.

Our pipeline also includes two preclinical programs. We are advancing KO-947, a small molecule inhibitor of extracellular-signal-regulated kinase, or ERK, as a potential treatment for patients with tumors that have mutations in or other dysregulation of the mitogen-activated protein kinase, or MAPK, signaling pathway, including pancreatic cancer, colorectal cancer, non-small cell lung cancer, or NSCLC, and melanoma. We anticipate submitting an investigational new drug application, or IND, for KO-947 to the Food and Drug Administration, or FDA, in the second quarter of 2016 and commencing a Phase 1 clinical trial in the second half of 2016. We are also developing orally available, small molecule inhibitors of the menin-mixed lineage leukemia, or menin-MLL, fusion protein interaction, which are currently in lead optimization as a potential treatment for patients with acute leukemias involving translocations or partial tandem duplications of the MLL gene. Our goal is to nominate a development candidate for our menin-MLL program in the second half of 2016.

We were originally incorporated in the State of Delaware in November 2007 under the name “Zeta Acquisition Corp. III,” or Zeta. Zeta was a “shell” company registered under the Securities Exchange Act of 1934, as amended, or the Exchange Act, with no specific business plan or purpose. On March 6, 2015, Zeta and Kura Operations, Inc., or Merger Sub, a wholly owned subsidiary of Zeta, and Kura Oncology, Inc., a privately held company incorporated in Delaware, or Prior Kura, completed a reverse merger transaction, or the Merger, in which Merger Sub merged with and into Prior Kura with Prior Kura remaining as the surviving entity and a wholly-owned operating subsidiary of Zeta. Prior Kura was incorporated in the State of Delaware in August 2014 to focus primarily on discovering and developing personalized therapeutics for the treatment of solid tumors and blood cancers. In connection with the Merger, Prior Kura changed its name to “Kura Operations, Inc.” and Zeta changed its name to “Kura Oncology, Inc.” In addition, on March 31, 2015, Kura Operations, Inc. merged with and into us and we continued as the surviving entity.

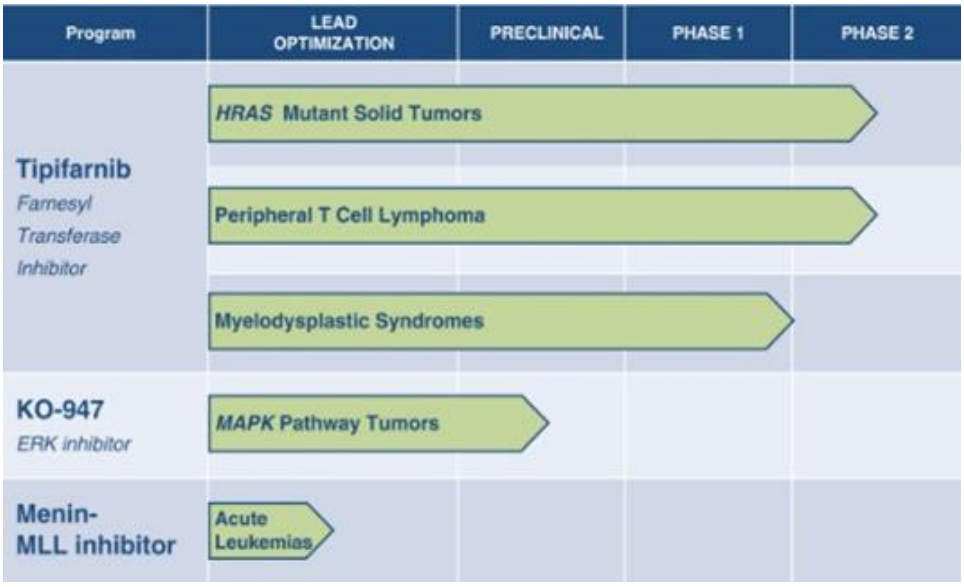
Strategy

Our strategy is to acquire, develop, and commercialize innovative anti-cancer agents in oncology indications with significant unmet medical need. The key components of our strategy include the following:

- Focus on developing novel treatments for cancer;
- Leverage companion diagnostics to identify subsets of patients more likely to benefit from our product candidates;
- Prioritize development of tipifarnib in clinical indications where improved outcomes are associated with specific biomarkers;
- Advance our pre-clinical programs into clinical proof-of-concept studies through a combination of internal development and strategic partnerships;
- Maintain significant development and commercial rights to our product candidates; and
- Build a sustainable product pipeline.

Clinical Programs and Pipeline

The following table summarizes our current product pipeline:



Tipifarnib —An Oral Farnesyl Transferase Inhibitor

Overview

Tipifarnib is a new chemical entity, or NCE, we in-licensed in December 2014 from Janssen. Tipifarnib is a small molecule inhibitor of protein farnesylation, a key cell signaling process implicated in various cancer processes. Tipifarnib has been studied in more than 5,000 oncology patients and was generally well tolerated with a manageable side effect profile.

Although tipifarnib has a well-established safety profile and has demonstrated compelling and durable anti-cancer activity in certain patients, its activity has not been sufficient in any prior clinical trial to support marketing approval by the FDA. A new drug application, or NDA, was previously submitted to the FDA in January 2005 by a member of the Johnson & Johnson family of companies, for accelerated approval of tipifarnib for elderly patients with newly diagnosed, poor risk acute myeloid leukemia, or AML, who were not candidates for standard chemotherapy. At the FDA Oncology Drugs Advisory Committee meeting to review that NDA, the panel voted against accelerated and conventional approval and the FDA subsequently issued a non-approvable letter. However, clinical and preclinical data suggest that, in certain selected patient populations, tipifarnib has the potential to provide significant benefit to cancer patients with limited treatment options.

Leveraging advances in next-generation sequencing, or NGS, as well as emerging information about cancer genetics, we will seek to identify patients most likely to benefit from tipifarnib. We initiated a Phase 2 clinical trial in patients who have tumors characterized by HRAS mutations in May 2015 and initiated a second Phase 2 clinical trial in patients with PTCL in September 2015. We also plan to initiate a Phase 2 clinical trial in patients with lower risk MDS in the second quarter of 2016. The preclinical studies and Phase 1–3 clinical trials in support of our IND for tipifarnib were conducted by affiliates of Johnson & Johnson and the National Cancer Institute. Efficacy and safety observations included in the IND are from 17 phase 1, 2 and 3 single-agent clinical trials conducted prior to December 31, 2007. Regulatory sponsorship of the Janssen IND for tipifarnib has been transferred to us.

HRAS Mutant Tumors

Market Opportunity

Retrovirus-associated DNA sequences, or RAS, is a family of membrane-associated proteins that are involved in regulating cell division in response to growth factor stimulation. HRAS is a member of the RAS family, which includes two other proto-oncogenes: Kirsten rat sarcoma viral oncogene homolog, or KRAS, and neuroblastoma RAS viral oncogene homolog, or NRAS. Collectively, the three RAS genes constitute one of the most frequently mutated families of oncogenes in human cancers. Although HRAS mutations are less common overall relative to KRAS and NRAS mutations, they have a relatively high prevalence in cancers of the upper digestive tract, skin, thyroid and urinary bladder. Collectively, cancers that have an HRAS mutation are estimated to have an annual incidence of approximately 8,000 patients in the United States.

HRAS as a Human Oncogene

The HRAS protein is involved in regulating cell division in response to growth factor stimulation. Growth factors act by binding cell surface receptors that span the cell's plasma membrane. Once activated, receptors stimulate signal transduction events in the cytoplasm, a process by which proteins and second messengers relay signals from outside the cell to the cell nucleus and instruct the cell to grow or divide. HRAS is localized in the plasma membrane, and is an early player in many signal transduction pathways. HRAS acts as a molecular on/off switch – once HRAS is turned "on" it recruits and activates proteins necessary for the propagation of the receptor's signal. In certain tumors, mutations in HRAS or its upstream regulators cause HRAS to be permanently "on," resulting in persistent activation of downstream growth and proliferation signals that drive tumor cell growth. Farnesyl transferase inhibitors, or FTIs, work to prevent the aberrant growth and proliferation of cells that are dependent on these signaling pathways by inhibiting protein farnesylation and subsequent membrane localization of HRAS, thereby switching HRAS "off."

FTIs such as tipifarnib prevent protein farnesylation, a type of protein modification known as prenylation, which along with other protein modifications, allows localization of HRAS to the inner surface of the cell membrane where HRAS can receive and transmit extracellular signals implicated in cancer initiation and development. Tipifarnib has been shown to inhibit HRAS function. Specifically, by blocking HRAS farnesylation and subsequent membrane localization, tipifarnib inhibits oncogenic, HRAS-driven cellular transformation *in vitro* and *in vivo*. Earlier studies of FTIs were based on the hypothesis that FTIs would be generally active in RAS driven tumors. However, FTIs showed no significant antitumor activity in patients with advanced solid tumors such as lung, pancreatic and colon cancers, which mainly harbor KRAS mutations, and although the FTIs have demonstrated responses in certain patients with AML, the activity of the compound has not been shown to correlate with NRAS mutations. While KRAS and NRAS similarly utilize protein farnesylation, they can also utilize a related prenylation pathway called geranylgeranylation that also leads to membrane localization and confers resistance to FTIs. We believe the refractory nature of RAS-driven tumors to treatment with FTIs has been attributed to this mechanism of resistance that is available to tumors with KRAS and NRAS mutations but not to those tumors with HRAS mutations. HRAS membrane localization is solely dependent on protein farnesylation, and therefore we believe that tipifarnib has the potential for the treatment of HRAS mutant solid tumors.

Clinical Development in HRAS Mutant Tumors

We initiated a Phase 2 clinical trial in May 2015 to test the hypothesis that tipifarnib can be used as a treatment for advanced tumors with a known HRAS mutation. We designed this clinical trial based on preclinical data which demonstrated that tipifarnib inhibits HRAS mutant cell proliferation and HRAS tumor growth in mouse models. Sponsorship of the IND for tipifarnib previously filed by Janssen has been transferred to us. The clinical trial is expected to enroll 2 cohorts of 18 patients each. Cohort 1 will enroll subjects with malignant thyroid tumors with HRAS mutations, independently of thyroid histology. Any subject with a non-hematological HRAS mutant tumor other than thyroid cancer who meets eligibility criteria may be enrolled in Cohort 2. This clinical trial has a two-stage study design to minimize the number of study subjects treated if tipifarnib is not sufficiently efficacious. If one or no objective response is observed in a cohort after the first 11 evaluable

patients, the cohort will be closed to further enrollment. If more than one response is observed in the cohort, 7 additional subjects will be enrolled (stage 2). The clinical trial will be considered positive if at least 4 responses are observed in a cohort (out of 18 subjects). The primary endpoint is objective response rate, and tumor response assessments will be conducted according to the Response Evaluation Criteria in Solid Tumors version 1.1 criteria (confirmation of response is required). We anticipate receiving topline data from this clinical trial in the second half of 2016.

Investigator Sponsored Trial in HRAS Mutant Urothelial Carcinoma

In addition to the company sponsored Phase 2 clinical trials, a Phase 2 investigator sponsored clinical trial of tipifarnib for the treatment of advanced, previously treated urothelial carcinomas that carry HRAS mutations, was initiated in November 2015. This clinical trial is sponsored by the Samsung Medical Center and designed to enroll at least 18 patients. The primary endpoint of this clinical trial is objective response rate, and secondary endpoints include progression-free survival, duration of response, and safety.

Companion Diagnostics

Patients are being enrolled in the Phase 2 HRAS mutant tumor clinical trials based on information from the clinical sites on the patients' tumor HRAS mutation status. Typically, this information is being obtained by the clinical sites from the NGS panels used by the site to characterize patients' tumors. If the results of our Phase 2 clinical trials are positive, we plan to partner development and validation of a companion diagnostic test to aid in the selection of patients with HRAS mutant tumors in subsequent clinical trials of tipifarnib and to prepare and submit an investigational device exemption, or IDE, for use of the assay in the clinical trial. We expect that the companion diagnostic test will either be a qualitative polymerase chain reaction, or qPCR, -based assay or an NGS-based assay. A qualitative PCR based assay would be technically very similar to the qPCR-based assays already developed and approved by the FDA for KRAS. We expect that regulatory approval of tipifarnib as a treatment for patients with HRAS mutant tumors will require FDA approval of an HRAS assay in the form of a companion diagnostic test that has been validated for accuracy, precision and reproducibility.

Peripheral T-Cell Leukemia

Market Opportunity

Lymphoma is the most common blood cancer. The two main forms of lymphoma are Hodgkin's lymphoma, or HL, and Non-Hodgkin's lymphoma, or NHL. Lymphoma occurs when cells of the immune system called lymphocytes grow and multiply uncontrollably. Cancerous lymphocytes can travel to many parts of the body, including the lymph nodes, spleen, bone marrow, blood, or other organs, and form tumors. The body has two main types of lymphocytes that can develop into lymphomas: B-cells and T-cells.

PTCL consists of a group of rare and usually aggressive (fast-growing) NHLs that develop from mature T-cells. PTCLs collectively account for about 5 to 10 percent of all NHL cases, corresponding to an annual incidence of approximately 5,000 patients per year in the United States. By some estimates, the incidence of PTCL is growing significantly, and the increasing incidence may be attributable to an aging population.

PTCLs are sub-classified into various subtypes, each of which are typically considered to be separate diseases based on their distinct clinical differences. Most of these subtypes are rare; the three most common subtypes are PTCL not otherwise specified, angioimmunoblastic T-cell lymphoma and anaplastic large-cell lymphoma, or ALCL, that collectively account for approximately 70 percent of all PTCLs in the United States.

Treatment Options for PTCL

For most PTCL subtypes, the frontline treatment regimen is typically combination chemotherapy, such as CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone), EPOCH (etoposide, vincristine, doxorubicin, cyclophosphamide, prednisone), or other multi-drug regimens.

Patients who relapse or are refractory to frontline treatments are typically treated with gemcitabine in combination with other chemotherapies, including gemcitabine, vinorelbine (Navelbine®) and doxorubicin (Doxil®) in a regimen called GND, or other chemotherapy regimens such as DHAP (dexamethasone, cytarabine, cisplatin) or ESHAP (etoposide, methylprednisolone, cytarabine, and cisplatin).

Because most patients with PTCL will relapse, some oncologists recommend giving high-dose chemotherapy followed by an autologous stem cell transplant to some patients who had a good response to their initial chemotherapy. Recent, non-cytotoxic therapies that have been approved for relapsed or refractory PTCL, such as pralatrexate (Folotyn®), romidepsin (Istodax®) and belinostat (Beleodaq®), are associated with relatively low objective response rates (25-27% overall response rate, or ORR) and relatively short durations of response (8.2-9.4 months). Accordingly, we believe the treatment of relapsed/refractory PTCL remains a significant unmet medical need.

The five year survival for patients with PTCL is low—roughly 35% by most published records—and few treatment options are able to provide a durable treatment effect. Treatments in the relapsed or refractory setting are not very effective. Therefore, National Comprehensive Cancer Network guidelines currently recommend that patients seek participation in a clinical trial for the initial treatment.

Previous Phase 2 Experience with Tipifarnib in the Treatment of PTCL

A prior Phase 2 clinical trial of tipifarnib was sponsored by the National Cancer Institute and conducted at the Mayo Clinic and University of Iowa from 2004 to 2009 in adult patients with relapsed or refractory lymphoma. Ninety-three patients (42 aggressive, 15 indolent, and 36 HL/T-cell lymphoma) were enrolled in the study, and patients received tipifarnib 300 mg twice daily on days 1-21 of each 28-day cycle. The median age of patients was 62 years (range, 18-91 years). A total of 71% of patients had stage IV disease. The median number of prior regimens was five (range, 1-17). The majority of patients were diagnosed with diffuse large B-cell lymphoma (40%; 37 of 93) or HL (20%; 19 of 93).

The ORR for all patients was 20.4%. In the HL/T-cell lymphoma cohort, the ORR was 31% with 17% complete responses, or CR, and 14% partial responses, or PR. Of these 36 patients 81% had four or more prior therapies and 67% had undergone hematopoietic stem cell transplant. In this cohort, the median overall survival, or OS, was 19.7 months, median duration of response was 7.5 months, and median time to progression, TTP, was 3.2 months. Five patients received treatment for more than 30 months with several patients receiving treatment for 60+ months.

Tipifarnib was generally well tolerated on this dose and schedule. Three patients with aggressive lymphoma died on study of progressive disease, but there were no deaths related to tipifarnib treatment. Across all patients, the grade 3 or 4 toxicities were primarily reversible myelosuppression, with 11% anemia, 37% neutropenia, and 32% thrombocytopenia.

Of particular relevance to our Phase 2 clinical trial in PTCL are the results observed in the patients with T-cell NHL. Although the clinical trial enrolled only small numbers of patients, a 41% response rate (7 responses out of 17 patients) was observed in patients with T-cell NHL, including 4 objective responses out of 8 patients with PTCL (3 CR and 1 PR). We believe the results observed from this Phase 2 clinical trial suggest that tipifarnib can be administered for prolonged periods and may produce durable responses as a single agent in relapsed lymphoma in a group of patients who were heavily pretreated, including those with PTCL.

Clinical Development in PTCL

Based on the promising results observed in the Phase 2 lymphoma study, we initiated a Phase 2 clinical trial in September 2015 to test the hypothesis that tipifarnib can be used as a treatment for patients with relapsed or refractory PTCL. This clinical trial is being conducted under the IND that was transferred to us from Janssen. The current study protocol has a two-stage design for a total number of 18 eligible patients. If one or no objective response is observed after the first 11 evaluable patients (stage 1), the study will be closed to further enrollment. If more than one response is observed, 7 additional patients will be enrolled (stage 2). The clinical trial will be considered positive if at least 4 responses are observed (out of 18 patients). The primary endpoint is objective response rate, and tumor response assessments will be conducted according to the International Workshop Criteria for the assessment of responses in lymphoma. The study also includes a potential extension to up to a total study enrollment of 30 patients if 5 or more objective responses are observed at the end of stage 1. Potential biomarkers that may contribute to the identification of patients who may benefit from tipifarnib therapy will be investigated in the study. These include genes that are expressed and/or mutated in tumor samples, and blood circulating cytokines. We anticipate receiving topline data from this clinical trial in the second half of 2017.

Myelodysplastic Syndromes

Market Opportunity

MDS are a group of hematopoietic stem cell malignancies with significant morbidity and mortality. MDS is characterized by ineffective blood cell production, or hematopoiesis, leading to low blood cell counts, or cytopenias, and high risk of progression to AML. MDS is a highly heterogeneous disease, and the severity of symptoms and disease progression can vary widely among patients. The current standard clinical tool to evaluate risk stratification, including survival and risk for AML transformation, and treatment options is the revised International Prognostic Scoring System, or IPSS-R. The IPSS-R differentiates patients into five risk groups (Very Low, Low, Intermediate, High, Very High) based on evaluation of cytogenetics, percentage of blasts (undifferentiated blood cells) in the bone marrow, hemoglobin levels, and platelet and neutrophil counts.

According to the ACS, the annual incidence of MDS is approximately 13,000 patients in the United States, the majority of which are 60 years of age or older. The estimated prevalence is over 60,000 patients in the United States. Approximately 75% of patients fall into the IPSS-R risk categories of Very Low, Low, and Intermediate, collectively known as lower risk MDS, which is our target patient population for our planned Phase 2 MDS clinical trial.

Treatment Options for MDS

Therapeutic options fall into three categories including supportive care, low intensity therapy and high intensity therapy. Supportive care includes the use of red blood cell and platelet transfusions as well as administration of hematopoietic cytokines such as erythropoiesis stimulating agents or colony stimulating factors to improve blood counts. Low intensity therapies include hypomethylating agents such as azacytidine (Vidaza®) and decitabine (Dacogen®), biological response modifiers such as lenalidomide (Revlimid®), and immunosuppressive treatments such as cyclosporine A or antithymocyte globulin. High intensity therapies include chemotherapeutic agents such as idarubicin, cytarabine, fludarabine and topotecan, and HSCT.

National Comprehensive Cancer Network, or NCCN, guidelines recommend that lower risk patients (IPSS-R groups Very Low, Low, Intermediate) receive supportive care or low intensity therapies with the major therapeutic goal of hematologic improvement, or HI. A substantial portion of lower risk MDS patients lack effective therapies, and NCCN guidelines recommend clinical trials as additional therapeutic options. We believe that treatment of MDS remains a significant unmet need requiring the development of novel therapies.

Previous Phase 2 Experience with Tipifarnib in the Treatment of MDS

A prior Phase 2 clinical trial of tipifarnib was sponsored by Johnson & Johnson and conducted at 19 sites in seven countries from 2002 to 2006 in adult patients with intermediate to high risk MDS. This study also included patients with chronic myelomonocytic leukemia. Eighty-two patients with IPSS-R scores of Intermediate-1, Intermediate-2, and High risk MDS were enrolled in the study, and patients received tipifarnib 300 mg twice daily on days 1-21 of each 28-day cycle. The median age of patients was 67 (range 39-86 years). The median time since diagnosis was 8.8 months (range 0-128 months) and 37% (30 of 82) had been received prior therapy.

The ORR for all patients was 31.7% (26 of 82), with 14.6% (12 of 82) CR and 17.1% (14 of 82) HI. In the 12 complete responders, the median response duration was 11.5 months (range 2.0-21.9 months), and the median TTP was 12.4 months (3.9-23.8 months). Median duration of HI was 18 weeks (range 6 to 76 weeks). Median OS was 11.7 months for all patients.

Table B: Phase 2 Clinical Trial of tipifarnib in Adult Patients with Intermediate to High Risk MDS

	n	**CR, n (%)**	**HI, n (%)**	**ORR, n (%)**	**Median DR**	**Median OS**
All patients	82	12 (14.6)	14 (17.1)	26 (31.7)	11.5	11.7

Tipifarnib was generally well tolerated. Ten patients died during the treatment period with five deaths due to progressive disease and five due to an adverse event of which only one was considered drug-related. This death was due to coronary insufficiency triggered by anemia and severe internal bleeding in the context of nonresponsive MDS with persistent Grade 4 thrombocytopenia. Grade 3-4 adverse events were primarily neutropenia, thrombocytopenia and anemia, and were reported as possibly drug-related in 15 patients (18%), 26 patients (32%), and 15 patients (18%), respectively. We believe the results of this study suggest that tipifarnib may produce durable responses as a single agent in patients with intermediate to high risk MDS.

Clinical Development in MDS

We plan to initiate a Phase 2 clinical trial to investigate the anti-tumor activity of tipifarnib in patients with lower risk MDS in the second quarter of 2016. We have prioritized lower risk MDS because of the prevalence of this disease and our belief that treatment of lower risk MDS remains a significant unmet medical need. We expect that the activity of tipifarnib in lower risk MDS will be no less than the activity observed in the previously investigated intermediate/high risk setting, which is a more aggressive form of the disease. We anticipate that our Phase 2 study in lower risk MDS would aim to enroll approximately 58 patients, and have a primary endpoint of transfusion independence according to the adult Myelodysplastic/Myeloproliferative Neoplasms International Working Group criteria or related response assessment system. We expect this study will be conducted under the IND that was transferred to us from Janssen. We anticipate receiving topline data from this clinical trial in the first half of 2017.

Exploratory Biomarkers

We have identified potential biomarkers that could be predictive of response to tipifarnib in MDS patients. One of these potential biomarkers is the killer cell immunoglobulin-like receptor 2DS2, or KIR2DS2, which is commonly expressed on natural killer, or NK, cells and some T-cells and serves to regulate their activity. Autoimmunity is known to play a key role in the onset of lower risk MDS, and KIR2DS2 has been shown to predispose patients to onset of both MDS and autoimmune diseases. KIR2DS2 is present in approximately 60% of MDS patients.

Our interest in KIR2DS2 and other killer cell immunoglobulin-like receptors, or KIRs, was triggered by the results of our retrospective analysis of gene expression from bone marrow samples in 34 previously untreated poor-risk and elderly AML patients who were treated with tipifarnib in a prior Cancer Therapy Evaluation Program, or CTEP 20, Phase 2 clinical trial sponsored by the National Cancer Institute. Twenty-five of the patients in CTEP 20 had prior MDS. We observed that expression of several markers, including KIR2DS2, strongly correlated with clinical benefit, including complete response rate, progression free survival, and OS.

We hypothesize that tipifarnib may influence the signaling of KIR2DS2 through its inhibition of protein farnesylation, either of RAS proteins or other farnesylated proteins in the cell. Through this mechanism, we believe that tipifarnib could inhibit aberrant NK cell activity and improve patient outcomes. Because KIR2DS2 and KIR2DS5 are known to predispose to autoimmunity and the onset of MDS, we believe that tipifarnib could attenuate the autoimmune process that causes severe cytopenias in lower risk MDS. This hypothesis will be tested in the planned Phase 2 study in lower risk MDS.

Companion Diagnostics

If the results of our Phase 2 clinical trial in MDS are positive, and KIR2DS2 or other immune cell markers are shown to be predictive of response to tipifarnib, we would expect to partner development and validation of a companion diagnostic test to aid in the selection of patients in subsequent clinical trials of tipifarnib in this patient population. Genetic assays detecting the presence or absence of certain of these genes and markers are already available and used in some instances in bone marrow transplantation. We plan to investigate in our Phase 2 clinical trial whether these genetic assays will be sufficient to define the MDS patients susceptible to receive clinical benefit from tipifarnib or whether a PCR based assay defining biomarker expression levels will need to be developed including identification of the optimal biomarker cut-off criterion for patient selection.

Registration Strategy for Tipifarnib

We anticipate that we will have topline data from our Phase 2 clinical trial in HRAS mutant solid tumors in the second half of 2016, Phase 2 clinical trial in lower-risk MDS in the first half of 2017 and Phase 2 clinical trial in PTCL in the second half of 2017. If the data from one or more of these three Phase 2 clinical trials is positive, we would plan to initiate a registrational Phase 3 clinical trial of tipifarnib in at least one disease indication. The use of regulatory pathways such as orphan drug or breakthrough therapy designation will be driven by the specific patient population and data from the Phase 2 clinical trials.

ERK Inhibitor Program

Overview

We are advancing KO-947, a small molecule inhibitor of ERK, as a potential treatment for patients with tumors that have dysregulated activity due to mutations or other mechanisms in the MAPK pathway, including lung cancers, colorectal cancers, pancreatic cancers and melanoma. KO-947 and backup compounds represent new chemical entities we acquired pursuant to an agreement effective December 23, 2014 from an affiliated company, Araxes Pharma LLC, or Araxes, a private biopharmaceutical company.

The high frequency of activating mutations in components of the MAPK pathway found in cancer provides strong rationale for targeting the MAPK pathway and, specifically, ERK. The MAPK pathway is responsible for receiving growth-promoting signals from outside the cell and translating these signals within the cell into programs that affect cell growth and proliferation. When external growth factors activate cell surface receptor tyrosine kinases, the MAPK pathway acts inside the cell to relay these growth signals through a series of signaling molecules, including the RAS, rapidly accelerated fibrosarcoma, or RAF, mitogen-activated protein kinase kinase, or MEK, and ERK family of kinases. ERK kinase is the final signaling kinase of the MAPK pathway.

Many cancers harbor genetic mutations in components of the MAPK pathway, especially in protein kinases, that lock transformed cells in a pro-growth state, even in the absence of external growth signals. Studies have shown that such aberrations in the MAPK pathway, including mutations in KRAS, B-Raf proto-oncogene, serine/threonine kinase, or BRAF, and other components of the pathway, are frequent contributors to the development of cancer in humans. Targeted cancer drugs, such as inhibitors of the proteins BRAF and MEK, that have been designed to turn off MAPK signaling by inhibiting specific protein kinases are effective, particularly in melanomas where the MAPK circuit is aberrantly active. We believe that a therapeutic product candidate that can block signaling of the MAPK pathway through inhibition of ERK should reduce or prevent cancer growth and may have a beneficial effect for patients.

As part of our ERK inhibitor program, we are advancing KO-947, which is an orally-available inhibitor of ERK that has nanomolar cellular potency in tumor cells with mutations in BRAF, NRAS or KRAS and induces tumor regressions at tolerable doses in xenograft mouse models. Because KO-947 targets ERK, a protein kinase essential to signaling through the MAPK pathway, it has the potential to selectively kill tumor cells bearing activating mutations in this critical pathway. KO-947 is currently in IND enabling studies. We anticipate filing an IND in the second quarter of 2016 and initiating a Phase 1 clinical trial in the second half of 2016.

Opportunity for Kura Oncology

We have focused on the discovery and development of ERK inhibitors and selected KO-947 as a potential product candidate because we believe that ERK inhibitors have two important potential advantages as therapeutics:

- Potential to effectively treat patients with mutations in the KRAS gene—a large and growing group of patients with lung, colorectal, pancreatic and other cancers who today have no effective therapy, and who have been identified with greater frequency due to recently approved diagnostic guidelines, and
- Potential to effectively treat patients with metastatic melanoma who receive “first-generation” BRAF or MEK inhibitors, but who develop resistance due to reactivation of ERK pathway signaling. KO-947 could prevent resistance through this mechanism and may thus cause responses of greater duration than the ones seen with first generation inhibitors and extend progression-free survival.

We acquired our ERK inhibitor program from Araxes based in La Jolla, California. Scientists at Araxes designed our ERK inhibitors using structure-guided drug discovery approaches to model chemical structures that would inhibit the ERK

protein kinase but spare inhibition of closely related kinases. These molecules were then synthesized and tested in assays to verify their ability to inhibit ERK as well as to inhibit MAPK pathway signaling.

Market Overview

Activating mutations in the KRAS gene are commonly found in a wide variety of tumor types. Among cancer indications with large patient populations, KRAS mutations are found in approximately 93 percent of pancreatic cancers, approximately 40 percent of colorectal cancers and approximately 12 percent of NSCLC. According to the ACS in 2016, there are estimated to be over 53,000 cases of pancreatic cancer, 134,000 cases of colorectal cancer and over 190,000 cases of NSCLC diagnosed each year in the United States. We believe this corresponds to approximately 49,000 cases of KRAS mutant pancreatic cancer, 54,000 cases of KRAS mutant colorectal cancer, and 23,000 cases of KRAS mutant NSCLC each year in the United States. These cancers typically present relatively late in their clinical course, when locally directed therapy (surgery and radiation) is not curative. The treatment of locally advanced and metastatic cancers represents a significant unmet medical need.

Specific inhibitors of RAF and MEK kinases have been developed to target BRAF- and RAS-mutant tumors. In particular, the FDA has approved the BRAF inhibitors vemurafenib (ZELBORAF®) and dabrafenib (TAFINLAR®) as well as the MEK inhibitors trametinib (MEKINIST®) and cobimetinib (COTELLIC®) for the treatment of BRAFV600E-mutant metastatic melanoma. Although these approvals are encouraging, durable responses in patients are limited, as median time to disease progression is approximately 6-7 months and resistance is often associated with pathway reactivation of the ERK signaling pathway.

According to the ACS in 2015, the annual incidence of diagnosed melanoma is 76,000 cases in the United States, of which approximately 16% have metastatic disease, and over 10,000 melanoma deaths occur in the each year in the United States. Mutations that activate the RAS/RAF/MEK/ERK pathway are common in melanoma, with BRAF mutations in 40% to 60%, and NRAS mutations in 15-20% of melanoma patients, suggesting the therapeutic potential for agents that target this pathway in metastatic melanoma. As ERK inhibitors target the RAS/RAF/MEK/ERK pathway, which is activated with BRAF mutation or NRAS mutation, they may also have the potential for activity not only in patients with BRAF-mutant melanoma, but also in patients with tumors that harbor mutations in the NRAS gene, who currently have no adequate treatment option and poor prognosis.

Preclinical Data for KO-947

Our development candidate in our ERK inhibitor program, KO-947, demonstrates potent inhibition of the ERK kinase and high selectivity relative to a panel of approximately 400 kinases. KO-947 has also shown promising activity in both cell culture and xenograft animal models of KRAS mutant tumors and BRAF mutated melanoma tumors.

In preclinical studies, xenograft BRAF and KRAS mutant tumors were grown subcutaneously in mice, followed by daily oral treatment with KO-947 or vehicle control. Animals treated with KO-947 showed full tumor regression, while vehicle control treated animals showed rapid tumor growth. In addition, KO-947 was tolerated at dose levels required to achieve tumor regressions with no apparent body weight loss in the mice. KO-947 has also shown promising activity in xenograft animal models of BRAF and KRAS mutant tumors with intermittent dosing regimens. In these models, anti-tumor activity has been shown to be comparable when the compound is administered via multiple dosing schedules including once daily, once every other day, or once weekly.

Ongoing IND-enabling Studies

Based on preclinical efficacy data in KRAS, NRAS and BRAF mutant tumor models as well as other models of dysregulated signaling of the MAPK pathway, we have advanced KO-947 into IND-enabling studies. The IND-enabling program includes toxicology studies to determine if select doses, schedules and modes of administration are able to achieve required drug exposures to generate tumor regression, which could be tolerable in the clinical setting.

We believe opportunities exist to advance both oral and intravenous, or IV, routes of administration of KO-947 into the clinic, however, we have elected to focus our initial efforts on the IV route. Our initial non-rodent toxicology studies have shown that IV administration may increase exposure and tolerability when compared to oral dosing. Based on our preclinical data we believe that we can maintain efficacy with intermittent IV dosing, which may translate into improved tolerability in the clinical setting. We anticipate filing an IND in the second quarter of 2016 and we intend to evaluate whether KO-947 provides clinical benefit to patients with solid tumors with mutations or other dysregulation of the MAPK pathway.

Menin-MLL Program

Overview

We are developing orally bioavailable small molecule inhibitors of the menin-MLL interaction for the treatment of MLL-r and MLL-PTD acute leukemias, a genetically defined subtype of the two most common forms of acute leukemia, AML and acute lymphoblastic leukemia, or ALL.

Background on Mixed Lineage Leukemias

MLL-r leukemias are an aggressive subtype of two of the most common forms of acute leukemia, ALL and AML. The estimated five-year OS rate for adult patients with the MLL-r subtype of AML ranges from approximately 5% to 24%. Patients with MLL-r leukemias are routinely diagnosed using existing technologies that are commonly used in clinical settings. As a result, there is high awareness of MLL-r leukemias among oncologists. The disease predominantly occurs in two different demographics—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 arises de novo. MLL-r leukemias are caused by a chromosomal translocation involving the MLL gene.

MLL-PTD is a subset of AML. MLL-PTD typically confers a worse prognosis with shortened overall and event free survival in childhood and adult AML.

The annual incidence of MLL-r and MLL-PTD patients is estimated to be 3,200 patients in the United States, and those patients currently have limited options other than chemotherapy or allogeneic stem cell transplant. There are no approved therapies specifically indicated for either the MLL-r or MLL-PTD leukemias. We believe there remains a significant unmet medical need.

Targeting the Menin-MLL Interaction

The MLL gene is a common target of chromosomal translocations found in patients with AML and ALL, which affects both children and adults. Fusion of MLL with one of over 50 different partner genes forms oncogenes encoding MLL fusion proteins, which play a causative role in the onset, development and progression of MLL. Binding of menin, a tumor suppressor protein, to MLL fusion proteins upregulates expression of target genes involved in the malignant transformation of blood cells. In contrast, mutations to MLL fusion proteins that block association with menin abrogate the development of acute leukemia in mice. These findings demonstrate that menin functions as an essential oncogenic co-factor of MLL fusion proteins, and it implies that the menin-MLL interaction represents a valuable target for molecular therapy.

We have licensed from the University of Michigan a class of small molecule inhibitors of the menin-MLL fusion protein interaction that specifically bind to menin with nanomolar potency. By blocking menin-MLL fusion protein interactions, these compounds effectively reverse MLL fusion protein-mediated leukemic transformation by down-regulating the expression of target genes required for MLL-fusion protein oncogenic activity. These compounds also selectively block proliferation and induce both apoptosis and differentiation of leukemia cells harboring MLL translocations.

Opportunity for Kura Oncology

Our menin-MLL development program is aimed at identifying product candidates with the potential to effectively treat patients with MLL-r leukemias—a subset of adult and pediatric patients who today have no effective therapy—as well as MLL-PTD leukemias, a subset of AMLs that have no effective therapy.

License and Asset Purchase Agreements

Janssen Pharmaceutica NV

In December 2014, we entered into a license agreement with Janssen, which grants us exclusive global rights to develop and commercialize tipifarnib in the field of oncology and includes the right to grant sublicenses. We are obligated under the license agreement to use commercially reasonable efforts to develop and commercialize tipifarnib in oncology and, with the exception of the transfer to us without cost of Janssen's existing inventory of tipifarnib material, we are responsible for all future development and commercialization costs for tipifarnib in oncology. Under the license agreement, Janssen has a first right to negotiate for an exclusive license back from us to develop and commercialize tipifarnib on terms to be

negotiated in good faith. Janssen may exercise this right of first negotiation during the 60-day period following completion of a Phase 2 clinical trial of tipifarnib in HRAS mutant patients in oncology and delivery by us to Janssen of a complete data package from such clinical trial.

Under the terms of the license agreement, in January 2015 we issued a convertible promissory note in the principal amount of $1.0 million to Johnson & Johnson Innovation—JJDC, Inc., which automatically converted into shares of Prior Kura common stock in our March 2015 private placement. When and if commercial sales of tipifarnib begin, we are obligated to pay Janssen tiered royalties of low double digit percentages of our net sales, depending on the amount of our net sales, with standard provisions for royalty offsets in the event of generic competition or compulsory licenses, on a product-by-product and country-by-country basis until the later of the expiration of the last to expire valid claim of the licensed patents covering the licensed product in the field in such country, the expiration of any regulatory exclusivity with respect to such product in such country, and ten years from our first commercial sale. We are also required to make regulatory milestone payments to Janssen of up to $25 million in the aggregate, if specified regulatory approvals are achieved for the first indication and additional payments for each subsequent indication if specified regulatory approvals are achieved. In addition, we are required to make sales milestone payments of up to $50 million in the aggregate if specified sales thresholds are surpassed. If we grant sublicenses under the license from Janssen, we are required to pay to Janssen a percentage of any upfront, lump-sum or milestone payments received from our sublicensee, subject to certain exclusions for regulatory milestone payments due under the license agreement.

The license agreement with Janssen will remain in effect until the expiration of all of our royalty and sublicense revenue obligations to Janssen, determined on a product-by-product and country-by-country basis, unless we elect to terminate the license agreement earlier. If we fail to meet our obligations under the license agreement and are unable to cure such failure within specified time periods, Janssen can terminate the license agreement, resulting in a loss of our rights to tipifarnib.

Araxes Pharma LLC

In December 2014, we entered into an asset purchase agreement with Araxes, which was amended and restated in February 2015, under which we purchased all of Araxes' patent rights in the ERK program, including KO-947 and additional backup compounds, and related intellectual property. When and if commercial sales of a product candidate covered by the purchased patent rights begin, we are obligated to pay Araxes tiered royalties of low single digit percentages of our net sales, depending on the amount of our net sales with standard provisions for royalty offsets. We are also required to make development and regulatory milestone payments to Araxes of up to $9.7 million in the aggregate if specified development events and regulatory approvals are achieved. Under the terms of the asset purchase agreement, in December 2014 we issued a convertible promissory note in the principal amount of $0.5 million to Araxes, which automatically converted into shares of Prior Kura common stock in our March 2015 private placement.

Competition

The development and commercialization of new products to treat cancer is intensely competitive and subject to rapid and significant technological change. Although we believe that our knowledge, experience and scientific resources provide us with competitive advantages, we face substantial competition from major pharmaceutical companies, specialty pharmaceutical companies, and biotechnology companies worldwide. Many of our competitors have significantly greater financial, technical, and human resources. Smaller and early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. As a result, our competitors may discover, develop, license or commercialize products before or more successfully than we do.

We face competition with respect to our current product candidates, and will face competition with respect to future product candidates, from segments of the pharmaceutical, biotechnology and other related markets that pursue approaches to targeting molecular alterations and signaling pathways associated with cancer. Our competitors may obtain regulatory approval of their products more rapidly than we do or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are more effective, more convenient, less costly, or possessing better safety profiles than our products, and these competitors may be more successful than us in manufacturing and marketing their products.

In addition, we will need to develop our product candidates in collaboration with diagnostic companies, and we will face competition from other companies in establishing these collaborations. Our competitors will also compete with us in

recruiting and retaining qualified scientific, management and commercial personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Furthermore, we also face competition more broadly across the market for cost-effective and reimbursable cancer treatments. The most common methods of treating patients with cancer are surgery, radiation and drug therapy, including chemotherapy, hormone therapy and targeted drug therapy or a combination of such methods. 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, if any are approved, may compete with these 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 may not be competitive with them. Some of these drugs are branded and subject to patent protection, and others are available on a generic basis. Insurers and other third-party payors may also encourage the use of generic products or specific branded products. We expect that if our product candidates are approved, they will be priced at a premium over competitive generic, including branded generic, products. As a result, obtaining market acceptance of, and gaining significant share of the market for, any of our product candidates that we successfully introduce to the market will pose challenges. In addition, many companies are developing new therapeutics, and we cannot predict what the standard of care will be as our product candidates progress through clinical development.

Tipifarnib Competition

While there are currently no approved drugs targeting farnesyltransferase, we are aware of a number of compounds that are now or have previously been in clinical development, including Merck's lonafarnib, Bristol-Myers Squibb's BMS-214662, Astellas Pharma's (formerly OSI) CP-609,754, and AstraZeneca's AZD3409. Lonafarnib is currently being investigated in a Phase 1 clinical trial in combination with temozolomide in patients with malignant gliomas. To our knowledge, there are no other ongoing clinical trials evaluating any of these agents for the treatment of cancer. However, the initiation of clinical development of another of these agents in an oncology setting could become competitively significant, and if tipifarnib or our other product candidates do not offer sustainable advantages over competing products, we may not be able to successfully compete against current and future competitors.

Even if we are successful in developing our product candidates, the resulting products would compete with a variety of established drugs in the targeted therapeutic indications of PTCL and MDS. Competitive drugs currently approved for PTCL include belinostat (Beleodaq®) and pralatrexate (Folotyn®), marketed by Spectrum Pharmaceuticals, romidepsin (Istodax®), marketed by Celgene, and brentuximab vedotin (Adcetris®) (for ALCL), marketed by Seattle Genetics. Competitive drugs currently approved for MDS include azacytidine (Vidaza®) and lenalidomide (Revlimid®), marketed by Celgene, and decitabine (Dacogen®) marketed by Otsuka and Johnson & Johnson. Although there are currently no drugs approved specifically for the treatment of HRAS-mutant solid tumors, there are a number of targeted therapies approved for the treatment of thyroid cancer, including AstraZeneca's vandetanib (Caprelsa®), Bayer's sorafenib (Nexavar®), Exelixis' cabozantinib (Cometriq®) and Eisai's lenvatinib (Lenvima®). There are no targeted therapies approved for the treatment of urothelial cancer.

ERK Inhibitor Competition

While there are currently no approved drugs targeting ERK, we are aware of a number of compounds that are in clinical development, including Roche/Genentech's RG-7842/GDC-0994, Celgene's CC-90003, and BioMed Valley Discoveries' ulixertinib (BVD-523). Furthermore, it is possible that other companies are also engaged in discovery or preclinical development of compounds targeting ERK. These competitors, if successful in clinical development, may achieve clinical activity, regulatory approval and market adoption in advance of our compounds, constraining the ability of our compounds to gain significant market share. Although we believe that our ERK inhibitors, including KO-947, present several potential advantages relative to these aforementioned candidates, including potency as demonstrated in preclinical studies, these results may not translate to superior therapeutic benefit in clinical trials.

Menin-MLL Inhibitor Competition

There are no drugs approved or in clinical trials targeting the menin-MLL protein-protein interaction. Although there are no targeted therapies approved specifically for the treatment of MLL-r leukemias, there are a number of products in clinical development, including Epizyme's EPZ-5676 and Novartis's midostaurin, as well as Pfizer's palbociclib (IBRANCE®), which has received accelerated approval in combination with letrozole, for the treatment of postmenopausal women with estrogen receptor-positive, human epidermal growth factor receptor 2-negative (ER+/HER2-) advanced breast cancer as initial endocrine-based therapy for their metastatic disease.

Commercialization

We have not yet established a sales, marketing or product distribution infrastructure because our lead candidates are still in discovery, preclinical or early clinical development. We anticipate that we will aim to retain commercial rights in North America for any of our product candidates for which we may in the future receive marketing approvals. We may also seek to retain commercial rights in Europe for any of our product candidates for which we may in the future receive marketing approvals. We currently anticipate that, if and when appropriate, we will seek to access the North American or European oncology markets through a focused, specialized, internal sales force.

Subject to receiving marketing approvals, we expect to commence commercialization activities by building a focused internal sales and marketing team in North America to sell our products. We may also build a focused internal sales and marketing team in Europe to sell our products. We believe that such an approach will enable us to address the community of oncologists who are the key specialists in treating the patient populations for which our current product candidates are being developed. Outside of regions where we maintain commercial rights, we may enter into distribution and other marketing arrangements with third parties for any of our product candidates that obtain marketing approval in foreign jurisdictions.

We also aim to build a marketing and sales management force to create and implement marketing strategies for any products that we may in the future market through our own sales teams and to oversee and support our sales force. We anticipate that our goals for any such marketing force include developing educational initiatives with respect to any approved products and establishing relationships with thought leaders in relevant fields of medicine.

We currently expect that any third parties with which we may collaborate in the future on the development of any commercial companion diagnostics for use with our therapeutic products will most likely hold the commercial rights to those diagnostic products. We expect that we would coordinate closely with any future diagnostic collaborators in connection with the marketing and sale of such diagnostic products and our related therapeutic products.

Manufacturing

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We 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 of any products that we may commercialize. Under our license agreement with Janssen, Janssen has provided us with its existing inventory of clinical supply of tipifarnib, which we believe will support our ongoing and planned Phase 2 clinical trials of tipifarnib. Janssen also provided us with its existing inventory of the crude drug substance and bulk key intermediate for manufacture of drug substance for tipifarnib. If needed, we aim to engage, by entering into a supply agreement or through another arrangement, third party manufacturers to provide us with additional tipifarnib clinical supply. For all of our product candidates, we aim to identify and qualify manufacturers to provide the active pharmaceutical ingredient, or API, and fill-and-finish services prior to submission of an NDA to the FDA.

We generally expect to rely on third parties for the manufacture of any companion diagnostics we or our collaborators may develop.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain proprietary or intellectual property protection for our product candidates and our core technologies, including novel biomarker and diagnostic discoveries and other know-how, to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary or intellectual property rights. We expect that we will seek to protect our proprietary and intellectual property position by, among other methods, licensing or filing our own U.S., international and foreign patent applications related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trade secrets, know-how and continuing technological innovation to develop and maintain our proprietary and intellectual property position, which we generally seek to protect through contractual obligations with third parties.

We currently, and expect that we will continue to, file or license patent applications directed to our key product candidates in an effort to establish intellectual property positions regarding composition-of-matter of these product candidates, as well as formulations, processes and methods of using these product candidates in the treatment of various cancers. We also intend to seek patent protection, if available, with respect to biomarkers that may be useful in selecting the right patient population for use of any of our product candidates. We own or in-license a patent portfolio consisting of

approximately 30 patent families, including issued U.S. patents and their respective counterparts in a number of foreign jurisdictions, pending U.S. patent applications, pending applications under the Patent Cooperation Treaty and corresponding pending patent applications in a number of foreign jurisdictions. In particular, we have exclusively licensed from Janssen a portfolio of approximately 20 patent families including composition-of-matter patents that cover tipifarnib as well as method-of-use patents covering tipifarnib for treating various cancers. These composition-of-matter and method-of-use patents are issued in major market countries including the United States, Europe, and Japan, and they are expected to expire in 2016 without patent term extension. We in-license from the University of Michigan or co-own approximately six families of patent applications pertaining to our menin-MLL program. Other patent applications we own include a composition-of-matter and method-of-use application covering our ERK product candidate. We currently, and expect that we will continue to, file for patents in the United States with counterparts in major market countries in Europe and other key markets in the rest of the world. We would expect that any patents that may issue from the pending U.S. patent applications directed to our ERK program and our menin-MLL program would likely start to expire in 2030; however, any and all of these patent applications may not result in issued patents.

In addition to the patent applications that we have filed to date, we plan to continue to expand our intellectual property portfolio by filing patent applications directed to dosage forms, methods of treatment and additional inhibitor compounds of oncology molecular targets and their derivatives. Specifically, we anticipate that we will 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, their intermediates and/or metabolites, the use of these compounds in a variety of therapies and the use of biomarkers for patient selection for these compounds. However, these or other patent applications that we may file or license from third parties may not result in the issuance of patents, and any issued patents may cover limited claims that reduce their value and/or may be challenged, invalidated or circumvented. See “Risk Factors—Risks Related to Our Intellectual Property.”

In addition to patents, we also rely upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our collaborators, scientific advisors, employees and consultants, and invention assignment agreements with our employees and selected consultants, scientific advisors and collaborators. The confidentiality agreements are designed to protect our proprietary information and, in the case of agreements or clauses requiring invention assignment, to grant us ownership of technologies that are developed through a relationship with a third-party.

Orange Book Listing

In seeking approval for a drug through an NDA, applicants are required to list with the FDA certain patents whose claims cover the applicant’s product. Upon approval, 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. Any applicant who files an abbreviated new drug application, or ANDA, seeking approval of a generic equivalent version of a drug listed in the Orange Book or a Section 505(b)(2) NDA referencing a drug listed in the Orange Book must certify to the FDA that (1) no patent information on the drug product that is the subject of the application has been submitted to the FDA; (2) such patent has expired; (3) the date on which such patent expires; or (4) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. This last certification is known as a paragraph IV certification. A notice of the paragraph IV certification must be provided to each owner of the patent that is the subject of the certification and to the holder of the approved NDA to which the ANDA or Section 505(b)(2) application refers. The applicant may also elect to submit a “section viii” statement certifying that its proposed label does not contain (or carves out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent.

If the NDA holder for the reference drug and/or patent owners assert a patent challenge directed to one of the Orange Book listed patents within 45 days of the receipt of the paragraph IV certification notice, the FDA is prohibited from approving the application until the earlier of 30 months from the receipt of the paragraph IV certification, expiration of the patent, settlement of the lawsuit, or a decision in the infringement case that is favorable to the applicant. The ANDA or Section 505(b)(2) application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the reference drug has expired as described in further detail below.

Non-Patent Exclusivity

In addition to patent exclusivity, the holder of an NDA for a listed drug may be entitled to a period of non-patent exclusivity, during which the FDA cannot approve an ANDA or Section 505(b)(2) application that relies on the listed drug.

For example, a pharmaceutical manufacturer may obtain five years of non-patent exclusivity upon FDA approval of an NCE, which is a drug that contains an active moiety that has not been approved by the FDA in any other NDA. An "active moiety" is defined as the molecule or ion responsible for the drug substance's physiological or pharmacologic action. During the five year exclusivity period, the FDA cannot accept for filing any ANDA seeking approval of a generic version of that drug or any Section 505(b)(2) NDA for the same active moiety and that relies on the FDA's findings regarding that drug, except that the FDA may accept an application for filing after four years if the follow-on applicant makes a paragraph IV certification. Five-year NCE exclusivity does not block the submission, review or approval of a 505(b)(1) NDA.

Patent Term Extension

After NDA approval, owners of relevant drug patents may apply for up to a five-year patent extension. The allowable patent term extension is calculated as half of the drug's testing phase—the time between IND application and NDA submission—plus all of the review phase—the time between NDA submission and approval up to a maximum of five years. The time can be shortened if the FDA determines that the applicant did not pursue approval with due diligence. The total patent term, including the extension may not exceed 14 years from the date of NDA approval.

For patents that might expire during the application phase, the patent owner may request an interim patent extension. An interim patent extension increases the patent term by one year and may be renewed up to four times. For each interim patent extension granted, the post-approval patent extension is reduced by one year. The director of the U.S. Patent and Trademark Office, or U.S. PTO, must determine that approval of the drug covered by the patent for which a patent extension is being sought is likely. Interim patent extensions are not available for a drug for which an NDA has not been submitted.

Government Regulation

FDA Approval Process

In the United States, pharmaceutical products are subject to extensive regulation by FDA. The Federal Food, Drug and Cosmetic Act, or FD&C Act, and other federal and state statutes and regulations govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling and import and export of pharmaceutical products. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending NDAs, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution.

Pharmaceutical product development for a new product or certain changes to an approved product in the United States typically involves preclinical laboratory and animal tests, the submission to FDA of an IND which must become effective before clinical testing may commence, and adequate and well-controlled clinical trials to establish the safety and effectiveness of the drug for each indication for which FDA approval is sought. Satisfaction of FDA pre-market approval, or PMA, requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease.

Preclinical tests include laboratory evaluation of product chemistry, formulation and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements, including good laboratory practices. The results of preclinical testing are submitted to FDA as part of an IND along with other information, including information about product chemistry, manufacturing and controls, and a proposed clinical trial protocol. Long-term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted.

A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If FDA has neither commented on nor questioned the IND within this 30-day period, the clinical trial proposed in the IND may begin.

Clinical trials involve the administration of the investigational new drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted: (i) in compliance with federal regulations; (ii) in compliance with good clinical practice, or GCP, an international standard meant to protect the rights and health of patients and to define the roles of clinical trial sponsors, administrators and monitors; as well as (iii) under protocols detailing the objectives of the clinical trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated.

Each protocol involving testing on U.S. patients and subsequent protocol amendments must be submitted to FDA as part of the IND.

FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions, if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The study protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board, or IRB, for approval. An IRB may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

Clinical trials to support NDAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase 1, the initial introduction of the drug into healthy human patients, the drug is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses, and, if possible, early evidence of effectiveness. Phase 2 usually involves clinical trials in a limited patient population to determine the effectiveness of the drug for a particular indication, dosage tolerance and optimum dosage, and to identify common adverse effects and safety risks. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 clinical trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit FDA to evaluate the overall benefit-risk relationship of the drug and to provide adequate information for the labeling of the drug. In most cases FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the drug. A single Phase 3 clinical trial with other confirmatory evidence may be sufficient in rare instances where the study is a large multicenter clinical trial demonstrating internal consistency and a statistically very persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity or prevention of a disease with a potentially serious outcome and confirmation of the result in a second clinical trial would be practically or ethically impossible.

After completion of the required clinical testing, an NDA is prepared and submitted to FDA. FDA approval of the NDA is required before marketing of the product may begin in the United States. The NDA must include the results of all preclinical, clinical and other testing and a compilation of data relating to the product's pharmacology, chemistry, manufacture and controls. The cost of preparing and submitting an NDA is substantial, and the fees are typically increased annually.

FDA has 60 days from its receipt of an NDA to determine whether the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, FDA begins an in-depth review. FDA has agreed to certain performance goals in the review of NDAs to encourage timeliness. Most applications for standard review drug products are reviewed within twelve months from submission; most applications for priority review drugs are reviewed within eight months from submission. Priority review can be applied to drugs that FDA determines offer major advances in treatment, or provide a treatment where no adequate therapy exists. The review process for both standard and priority review may be extended by FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

FDA may also refer applications for novel drug products, or drug products that present difficult questions of safety or efficacy, to an outside advisory committee—typically a panel that includes clinicians and other experts—for review, evaluation and a recommendation as to whether the application should be approved. FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations.

Before approving an NDA, FDA will typically inspect one or more clinical sites to assure compliance with GCP. Additionally, FDA will inspect the facility or the facilities at which the drug is manufactured. FDA will not approve the product unless compliance with current good manufacturing practice, or cGMP—a quality system regulating manufacturing—is satisfactory and the NDA contains data that provide substantial evidence that the drug is safe and effective in the indication studied.

After FDA evaluates the NDA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for FDA to reconsider the application. If, or when, those deficiencies have been addressed to FDA's satisfaction in a resubmission of the NDA, FDA will issue an approval letter. FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included.

An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. As a condition of NDA approval, FDA may require a risk evaluation and mitigation strategy, or REMS, to help ensure that the benefits of the drug outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the drug. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the drug's safety or efficacy. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Fast Track Designation and Accelerated Approval

FDA is required to facilitate the development, and expedite the review, of drugs that are intended for the treatment of a serious or life-threatening disease or condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the Fast Track program, the sponsor of a new product candidate may request that FDA designate the product candidate for a specific indication as a Fast Track drug concurrent with, or after, the filing of the IND for the product candidate. FDA must determine if the product candidate qualifies for Fast Track Designation within 60 days of receipt of the sponsor's request.

Under the Fast Track program and FDA's accelerated approval regulations, FDA may approve a drug for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon 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.

In clinical trials, a surrogate endpoint is a measurement of laboratory or clinical signs of a disease or condition that substitutes for a direct measurement of how a patient feels, functions, or survives. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. A product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, will allow FDA to withdraw the drug from the market on an expedited basis. All promotional materials for product candidates approved under accelerated regulations are subject to priority review by FDA.

If a submission is granted Fast Track Designation, the sponsor may engage in more frequent interactions with FDA, and FDA may review sections of the NDA before the application is complete. This rolling review is available if the applicant provides, and FDA approves, a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, FDA's time period goal for reviewing an application does not begin until the last section of the NDA is submitted. Additionally, Fast Track Designation may be withdrawn by FDA if FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Breakthrough Therapy Designation

FDA is also required to expedite the development and review of the application for approval of drugs that are intended to treat a serious or life-threatening disease or condition where preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. Under the Breakthrough Therapy program, the sponsor of a new product candidate may request that FDA designate the product candidate for a specific indication as a breakthrough therapy concurrent with, or after, the filing of the IND for the product candidate. FDA must determine if the product candidate qualifies for Breakthrough Therapy designation within 60 days of receipt of the sponsor's request.

Orphan Drug Designation and Exclusivity

The Orphan Drug Act provides incentives for the development of products intended to treat rare diseases or conditions. Under the Orphan Drug Act, the FDA may grant orphan designation to a drug intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making a drug available in the United States for this type of disease or condition will be recovered from sales of the product. If a sponsor demonstrates that a drug is intended to treat a rare disease or condition, the FDA will grant orphan designation for that product for the orphan disease indication, assuming that the same drug has not already been approved for the indication for which the sponsor is seeking orphan designation. If the same drug has already been approved for the indication for which the sponsor is seeking orphan designation, the sponsor must present a plausible hypothesis of clinical superiority in order to obtain orphan designation. Orphan designation must be requested before submitting an NDA. After the FDA grants orphan designation, the FDA discloses the identity of the therapeutic agent and its potential orphan use.

Orphan designation may provide manufacturers with benefits such as research grants, tax credits, Prescription Drug User Fee Act application fee waivers, and eligibility for orphan drug exclusivity. If a product that has orphan designation subsequently receives the first FDA approval of the active moiety for that disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which for seven years prohibits the FDA from approving another product with the same active ingredient for the same indication, except in limited circumstances. Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Further, the FDA may approve more than one product for the same orphan indication or disease as long as the products contain different active ingredients. Moreover, competitors may receive approval of different products for the indication for which the orphan drug has exclusivity or obtain approval for the same product but for a different indication for which the orphan drug has exclusivity.

In the European Union, orphan drug designation also entitles a party to financial incentives such as reduction of fees or fee waivers and 10 years of market exclusivity is granted following drug or biological product approval. This period may be reduced to 6 years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Post-Approval Requirements

Once an NDA is approved, a product will be subject to certain post-approval requirements. For instance, FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Adverse event reporting and submission of periodic reports are required following FDA approval of an NDA. FDA also may require post-marketing testing, known as Phase 4 testing, REMS, and surveillance to monitor the effects of an approved product, or FDA may place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control, drug manufacture, packaging and labeling procedures must continue to conform to cGMPs after approval. Drug manufacturers and certain of their subcontractors are required to register their establishments with FDA and certain state agencies. Registration with FDA subjects entities to periodic unannounced inspections by FDA, during which the Agency inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production and quality-control to maintain compliance with cGMPs. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered.

Pediatric Information

Under the Pediatric Research Equity Act, or PREA, NDAs or supplements to NDAs must contain data 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 drug is safe and effective. FDA may grant full or partial waivers, or deferrals, for submission of data. Unless otherwise required by regulation, PREA does not apply to any drug for an indication for which orphan designation has been granted.

The Best Pharmaceuticals for Children Act, or BPCA, provides NDA holders a six-month extension of any exclusivity—patent or non-patent—for a drug if certain conditions are met. Conditions for exclusivity include FDA's determination that information relating to the use of a new drug in the pediatric population may produce health benefits in that population, FDA making a written request for pediatric studies, and the applicant agreeing to perform, and reporting on, the requested studies within the statutory timeframe. Applications under the BPCA are treated as priority applications, with all of the benefits that designation confers.

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. If safe and effective use of a therapeutic product depends on an in vitro diagnostic, or IVD, FDA generally will require approval or clearance of the diagnostic at the same time that FDA approves the therapeutic product. This policy is described in an August 2014 FDA guidance document.

FDA has required in vitro companion diagnostics intended to select the patients who will respond to cancer treatment to obtain a PMA for that diagnostic simultaneously with approval of the drug. We believe that 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 FDA's Center for Drug Evaluation and Research and by FDA's Center for Devices and Radiological Health.

The PMA process, including the gathering of clinical and nonclinical data and the submission to and review by FDA, can take several years or longer. It involves a rigorous premarket review during which the applicant must prepare and provide FDA with reasonable assurance of the device's safety and effectiveness and information about the device and its components regarding, among other things, device design, manufacturing and labeling. PMA applications are subject to an application fee. In addition, PMAs for certain devices must generally include the results from extensive preclinical and adequate and well-controlled clinical trials to establish the safety and effectiveness of the device for each indication for which FDA approval is sought. In particular, for a diagnostic, the applicant must demonstrate that the diagnostic produces reproducible results when the same sample is tested multiple times by multiple users at multiple laboratories. As part of the PMA review, FDA will typically inspect the manufacturer's facilities for compliance with the Quality System Regulation, or QSR, which imposes elaborate testing, control, documentation and other quality assurance requirements.

PMA approval is not guaranteed, and FDA may ultimately respond to a PMA submission with a not approvable determination based on deficiencies in the application and require additional clinical trial or other data that may be expensive and time-consuming to generate and that can substantially delay approval. If FDA's evaluation of the PMA application is favorable, FDA typically issues an approvable letter requiring the applicant's agreement to specific conditions, such as changes in labeling, or specific additional information, such as submission of final labeling, in order to secure final approval of the PMA. If FDA concludes that the applicable criteria have been met, FDA will issue a PMA for the approved indications, which can be more limited than those originally sought by the applicant. The PMA can include post-approval conditions that FDA believes necessary to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution.

After a device is placed on the market, it remains subject to significant regulatory requirements. Medical devices may be marketed only for the uses and indications for which they are cleared or approved. Device manufacturers must also establish registration and device listings with FDA. A medical device manufacturer's manufacturing processes and those of its suppliers are required to comply with the applicable portions of the QSR, which cover the methods and documentation of the design, testing, production, processes, controls, quality assurance, labeling, packaging and shipping of medical devices. Domestic facility records and manufacturing processes are subject to periodic unscheduled inspections by FDA. FDA also may inspect foreign facilities that export products to the United States.

Failure to comply with applicable regulatory requirements can result in enforcement action by FDA, which may include any of the following sanctions: warning letters, fines, injunctions, civil or criminal penalties, recall or seizure of current or future products, operating restrictions, partial suspension or total shutdown of production, denial of submissions for new products, or withdrawal of PMA approvals.

Clinical Trials and IDEs

A clinical trial is almost always required to support a PMA application. In some cases, one or more smaller IDE studies may precede a pivotal clinical trial intended to demonstrate the safety and efficacy of the investigational device.

All clinical studies of investigational devices must be conducted in compliance with the FDA's requirements. If an investigational device could pose a significant risk to patients pursuant to FDA regulations, the FDA must approve an IDE application prior to initiation of investigational use. IVD trials usually do not require an IDE, as the FDA does not judge them to be a significant risk because the results do not affect the patients in the study. However, for a clinical trial where the IVD result directs the therapeutic care of patients with cancer, we believe that the FDA may consider the investigation to present significant risk and require an IDE application.

An IDE application must be supported by appropriate data, such as laboratory test results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. The FDA typically grants IDE approval for a specified number of patients. A non-significant risk device does not require FDA approval of an IDE. Both significant risk and non-significant risk investigational devices require approval from IRBs at the study centers where the device will be used.

During the critical trial, the sponsor must comply with the FDA's IDE requirements for investigator selection, clinical trial monitoring, reporting and record keeping. The investigators must obtain patient informed consent, rigorously follow the investigational plan and study protocol, control the disposition of investigational devices and comply with all reporting and record keeping requirements. Prior to granting PMA approval, the FDA typically inspects the records relating to the conduct of the study and the clinical data supporting the PMA application for compliance with applicable requirements.

Although the QSR does not fully apply to investigational devices, the requirement for controls on design and development does apply. The sponsor also must manufacture the investigational device in conformity with the quality controls described in the IDE application and any conditions of IDE approval that the FDA may impose with respect to manufacturing.

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our product candidates to the extent we choose to sell any products outside of the United States. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by 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 the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country. As in the United States, post-approval regulatory requirements, such as those regarding product manufacture, marketing, or distribution would apply to any product that is approved outside the United States.

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, including any manufacturing changes, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, import and export of pharmaceutical products, such as those we are developing.

Additional Regulations and Environmental Matters

In addition to FDA restrictions on marketing of pharmaceutical products, we are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which we conduct our business. These laws, which generally will not be applicable to us or our product candidates unless and until we obtain FDA marketing approval for any of our product candidates, include transparency laws, anti-kickback statutes, false claims statutes and regulation regarding providing drug samples, among others.

The federal Anti-Kickback Statute prohibits, among other things, individuals and entities from knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. Violations of the federal Anti-Kickback Statute are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal healthcare programs.

Federal false claims laws and civil monetary penalties, including the False Claims Act, prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Recently, several pharmaceutical companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for, among other things, 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, or the HITECH 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 used and disclosed by covered entities and their business associates. Many states and foreign jurisdictions also have laws and regulations that govern the privacy and security of individually identifiable health information, and such laws often vary from one another and from HIPAA.

The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to payments or other transfers of value made to physicians and teaching hospitals, and certain manufacturers and group purchasing organizations to report annually ownership and investment interests held by the physicians and their immediate family members.

The majority of states also have statutes or regulations similar to the federal Anti-Kickback Law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Our activities may also be certain state laws regarding the privacy and security of health information that may not be preempted by HIPAA, as well as additional tracking and reporting obligations regarding payments to healthcare providers and marketing expenditures.

In addition to regulatory schemes that apply, or may in the future apply, to our business, we are or may become subject to various environmental, health and safety laws and regulations governing, among other things, laboratory procedures and any use and disposal by us of hazardous or potentially hazardous substances in connection with our research and development activities. We do not presently expect such environmental, health and safety laws or regulations to materially impact our present or planned future activities.

Coverage and Reimbursement

Sales of any of our product candidates that may be approved will depend, in part, on the extent to which the cost of the product will be covered by third party payors. Third party payors may limit coverage to an approved list of products, or formulary, which might not include all drug products approved by the FDA for an indication. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

Any product candidates for which we obtain marketing approval may not be considered medically necessary or cost-effective by third party payors, and we may need to conduct expensive pharmacoeconomic studies in the future to demonstrate the medical necessity and/or cost effectiveness of any such product. Nonetheless, our product candidates may not be considered medically necessary or cost effective. The U.S. government, state legislatures and foreign governments

have shown increased interest in implementing cost containment programs to limit government-paid health care costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Continued interest in and adoption of such controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals such as the product candidates we are developing.

Health Reform

The United States and some foreign jurisdictions are considering or have enacted a number of 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 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. By way of example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA, was signed into law, which intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add transparency requirements for the healthcare and health insurance industries, impose taxes and fees on the health industry and impose additional health policy reforms. With regard to pharmaceutical products, among other things, the ACA expanded and increased industry rebates for drugs covered under Medicaid programs and made changes to the coverage requirements under the Medicare prescription drug benefit. Since its enactment there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. We continue to evaluate the effect that the ACA has on our business.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year effective April 1, 2013 and, due to subsequent legislative amendments to the statute, will stay in effect through 2025 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, 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, which could have a material adverse effect on customers for our drugs, if approved, and, accordingly, our financial operations. Recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products. For example, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products.

In the coming years, additional legislative and regulatory changes could be made to governmental health programs that could significantly impact pharmaceutical companies and the success of our product candidates.

Employees

As of December 31, 2015, we had 21 full-time employees and three part-time employees, including nine employees with M.D. or Ph.D. degrees. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Corporate Information

Our corporate headquarters are located at 11119 North Torrey Pines Road, Suite 125, La Jolla, California 92037, and our telephone number is (858) 500-8800. We also occupy offices in Cambridge, Massachusetts. We maintain a website at www.kuraoncology.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this Annual Report.

All brand names or trademarks appearing in this Annual Report are the property of their respective holders. Use or display by us of other parties' trademarks, trade dress, or products in this Annual Report is not intended to, and does not, imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

We are an "emerging growth company," as defined in the JOBS Act. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of our November 2015 public offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.0 billion, (3) the day we are

deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeded $700.0 million as measured as of the prior June 30th, and (4) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period. References herein to "emerging growth company" shall have the meaning associated with it in the JOBS Act.

Unless the context requires otherwise, references in this Annual Report to "Kura," "we," "us" and "our" refer to Prior Kura for the periods prior to the Merger and Kura Oncology, Inc., a Delaware corporation incorporated in November 2007 and formerly known as Zeta, for the periods following the Merger.

Reverse Merger

On March 6, 2015, Zeta, Merger Sub and Prior Kura completed the Merger. In the Merger, each outstanding share of capital stock of Prior Kura was automatically exchanged for 0.5 shares of our common stock. Following the Merger and the redemption of all of our then outstanding shares at the closing of the Merger, the former stockholders of Prior Kura owned 100% of the shares of our outstanding capital stock.

Item 1A. Risk Factors.

RISK FACTORS

Except for the historical information contained herein or incorporated by reference, this Annual Report and the information incorporated by reference contains forward-looking statements that involve risks and uncertainties. These statements include projections about our accounting and finances, plans and objectives for the future, future operating and economic performance and other statements regarding future performance. These statements are not guarantees of future performance or events. Our actual results may differ materially from those discussed here. Factors that could cause or contribute to differences in our actual results include those discussed in the following section, as well as those discussed in Part II, Item 7 entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere throughout this Annual Report and in any other documents incorporated by reference into this Annual Report. You should consider carefully the following risk factors, together with all of the other information included or incorporated in this Annual Report. Each of these risk factors, either alone or taken together, could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our common stock. There may be additional risks that we do not presently know of or that we currently believe are immaterial which could also impair our business and financial position.

Risks Related to Our Financial Position and Need For Additional Capital

We expect to incur losses over the next several years and may never achieve or maintain profitability.

We expect that it will be many years, if ever, before we have a product candidate ready for commercialization. To date, we have financed our operations primarily through equity and debt financings. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. The net losses we incur may fluctuate significantly from quarter to quarter. We anticipate that our expenses will increase substantially if and as we:

- continue development of our product candidates;
- initiate new clinical trials for our product candidates;
- seek marketing approvals for our product candidates;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, expand and protect our intellectual property portfolio;
- hire additional personnel;
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts; and
- incur increased costs as a result of continued operations as a public company.

To become and remain profitable, we must develop and eventually commercialize a product or products with significant market potential. This will require us to be successful in a range of challenging activities, including completing clinical trials of our product candidates, obtaining marketing approval from the FDA for these product candidates and manufacturing, marketing and selling those products for which we may obtain marketing approval. We may never succeed in these activities and, even if we do, may never generate revenues that are significant or large enough to achieve profitability. 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 decrease the value of the company and could impair our ability to raise capital, maintain our discovery and preclinical development efforts, expand our business or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

We are a clinical-stage company with no approved products and no historical product revenue. Consequently, we expect that our financial and operating results will vary significantly from period to period.

We are a clinical-stage company that has incurred losses since our inception and expect to continue to incur substantial losses in the foreseeable future. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of uncertainty. We expect our actual financial condition and operating results to fluctuate significantly from quarter-to-quarter or year-to-year due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include:

- the success of our clinical trials through all phases of clinical development;
- delays in the commencement, enrollment and timing of clinical trials;
- our ability to secure and maintain collaborations, licensing or other arrangements for the future development and/or commercialization of our product candidates, as well as the terms of those arrangements;
- our ability to obtain, as well as the timeliness of obtaining, additional funding to develop our product candidates;
- the results of clinical trials or marketing applications for product candidates that may compete with our product candidates;
- competition from existing products or new products that may receive marketing approval;
- potential side effects of our product candidates that could delay or prevent approval or cause an approved drug to be taken off the market;
- any delays in regulatory review and approval of our product candidates;
- our ability to identify and develop additional product candidates;
- the ability of patients or healthcare providers to obtain coverage or sufficient reimbursement for our products;
- our ability, and the ability of third parties such as contract research organizations, or CROs, to adhere to clinical study and other regulatory requirements;
- the ability of third-party manufacturers to manufacture our product candidates and key ingredients needed to conduct clinical trials and, if approved, successfully commercialize our products;
- the costs to us, and our ability as well as the ability of any third-party collaborators, to obtain, maintain and protect our intellectual property rights;
- costs related to and outcomes of any future intellectual property litigation;
- our ability to adequately support future growth;
- our ability to attract and retain key personnel to manage our business effectively; and
- our ability to build our finance infrastructure and, to the extent required, improve our accounting systems and controls.

Accordingly, the likelihood of our success must be evaluated in light of many potential challenges and variables associated with a clinical-stage company, many of which are outside of our control, and past operating or financial results should not be relied on as an indication of future results. Fluctuations in our operating and financial results could cause our share price to decline. It is possible that in some future periods, our operating results will be above or below the expectations of securities analysts or investors, which could also cause our share price to decline.

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

We are an early-stage clinical development company. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, identifying and acquiring potential product candidates, undertaking preclinical studies and preparing for and undertaking clinical studies of our most advanced product candidate, tipifarnib. We have not yet demonstrated our ability to successfully complete any clinical trials, including those clinical trials in support of FDA approval, obtain marketing 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. Medicines, on average, take 10 to 15 years to be developed from the time they are discovered to the time they are available for treating

patients. Consequently, any predictions you make about our future success or viability based on our short operating history to date may not be as accurate as they could be if we had a longer operating history.

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

We will need to obtain substantial additional capital in connection with our continuing operations. 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 will need to raise additional capital in connection with our continuing operations. We expect to finance our cash needs through a combination of equity offerings and debt financings. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect rights of our stockholders as a common stockholder. 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.

We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts.

Our ability to use our net operating tax loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an “ownership change” (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period), the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income may be limited. As a result of our March 2015 private placement and November 2015 public offering, and other transactions that have occurred over the past three years, we may have triggered an “ownership change” limitation. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards and other pre-change tax attributes to offset U.S. federal and state taxable income may be subject to limitations, which could potentially result in increased future tax liability to us.

Risks Related to the Discovery and Development of Our Product Candidates

Our discovery, preclinical and clinical development is focused on the development of targeted therapeutics for patients with genetically defined cancers, 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 and development of targeted drug therapeutics for patients with genetically defined cancers 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 preliminary and limited. The patient populations for our product candidates are not completely defined but are substantially smaller than the general treated cancer population, and we will need to screen and identify these patients. Successful identification of patients is dependent on several factors, including achieving certainty as to how specific genetic alterations respond to our product candidates and developing companion diagnostics to identify such genetic alterations. Furthermore, even if we are successful in identifying patients, we cannot be certain that the resulting patient populations will be large enough to allow us to successfully commercialize our products and achieve profitability. Therefore, we do not know if our approach of treating patients with genetically defined cancers will be successful. If our approach is unsuccessful, our business will suffer.

Our research and development programs and product candidates are at an early stage of development. As a result we are unable to predict if or when we will successfully develop or commercialize our product candidates.

Our clinical-stage product candidate, tipifarnib, as well as our other pipeline assets are at an early stage of development and will require significant investment and regulatory approvals prior to commercialization. We currently have no product candidates beyond Phase 2 clinical trials. We commenced a Phase 2 clinical trial of tipifarnib in advanced solid tumors with the HRAS mutation in May 2015, commenced a Phase 2 clinical trial in PTCL in September 2015 and anticipate commencing a Phase 2 clinical trial in patients with lower risk MDS in the second quarter of 2016. Our development candidate in our ERK program, KO-947, is in IND-enabling pre-clinical development, and our other programs, including our menin-MLL program, are in earlier stages of discovery and development. Each of our product candidates will require additional clinical and preclinical development, management of clinical, preclinical and manufacturing activities, obtaining regulatory approval, obtaining manufacturing supply, building of a commercial organization, substantial investment and significant marketing efforts before we generate any revenues from product sales. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. In addition, our product development programs contemplate the development of companion diagnostics. Companion diagnostics are subject to regulation as medical devices and we may be required to obtain marketing approval for accompanying companion diagnostics before we may commercialize our product candidates.

We cannot be certain that clinical development of tipifarnib or any of our other product candidates will be successful or that we will obtain regulatory approval or be able to successfully commercialize any of our product candidates and generate revenue. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and the clinical trial process may fail to demonstrate that our product candidates are safe and effective for their proposed uses. Any such failure could cause us to abandon further development of any one or more of our product candidates and may delay development of other product candidates. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. Tipifarnib has been studied in more than 5,000 oncology patients and was generally well tolerated and exhibited a manageable side effect profile. However, there is no guarantee that unacceptable side effects will not be identified at the doses and schedules we are using or plan to use in our clinical trials of tipifarnib. In prior studies tipifarnib demonstrated anti-cancer activity in certain patient subsets. However the anti-cancer activity observed was not sufficient to support marketing approval by the FDA in the indication in which it was sought. Although we are designing our clinical trials to target the patient subsets who we believe are most likely to benefit from treatment with tipifarnib, there is no guarantee that our clinical trials will be successful. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier clinical trials. Any delay in, or termination of, our clinical trials will delay and possibly preclude the filing of any NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenue.

We have not previously submitted an NDA to the FDA, or similar drug approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that any of our product candidates will receive regulatory approval. Further, our product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market one or more of our product candidates, our revenues will be dependent, in part, upon our or our future collaborators' ability to obtain regulatory approval of the companion diagnostics to be used with our product candidates, if required, as well as the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such products, if approved.

Difficulty in enrolling patients could delay or prevent clinical trials of our product candidates. We may find it difficult to enroll patients in our Phase 2 clinical trials for tipifarnib.

Identifying and qualifying patients to participate in clinical studies of our product candidates is critical to our success. The timing of our clinical studies depends in part on the speed at which we can recruit patients to participate in testing our product candidates, and we may experience delays in our clinical trials if we encounter difficulties in enrollment. The patient population for our product candidates is not completely defined, but it is substantially smaller than other cancer indications, because we are looking for the same type of genetic alterations across different tumor types and the number of patients with these alterations may be small. For example, with respect to tipifarnib, we do not know how many patients will have the target HRAS mutations that tipifarnib is expected to inhibit. With regard to our Phase 2 clinical trial in PTCL, we anticipate enrollment will take longer than initially planned. There are a limited number of patients with PTCL, as well as a limited

number of clinical centers that treat these patients, and there is substantial competition to recruit these patients to clinical trials.

In addition to the potentially small populations, the eligibility criteria of our clinical trials will further limit the pool of available study participants as we will require that patients have specific characteristics that we can measure or to assure their disease is either severe enough or not too advanced to include them in a study. Additionally, the process of finding and diagnosing patients may prove costly. We also may not be able to identify, recruit and enroll a sufficient number of patients to complete our clinical studies because of the perceived risks and benefits of the product candidate under study including the number and frequency of study required procedures and tests, the availability and efficacy of competing therapies and clinical trials, the proximity and availability of clinical study sites for prospective patients, and the patient referral practices of physicians. If patients are unwilling to participate in our studies for any reason, the timeline for recruiting patients, conducting studies, and obtaining regulatory approval of potential products may be delayed.

If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenue from any of these product candidates could be delayed or prevented. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process, and jeopardize our ability to commence product sales and generate revenue. Any of these occurrences may harm our business, financial condition, and prospects significantly. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates, including:

- unforeseen safety issues or adverse side effects;
- failure of our companion diagnostics in identifying patients;
- modifications to protocols of our clinical trials resulting from FDA or IRB decisions; and
- ambiguous or negative interim results of our clinical trials, or results that are inconsistent with earlier results.

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

A key element of our strategy is to build a pipeline of small molecule product candidates that inhibit cancer signaling targets where we believe outcomes can be improved by using molecular diagnostics to identify those patients whose tumors have the genetic mutations most likely to respond to treatment, and to progress those product candidates through clinical development for the treatment of a variety of different types of cancer. We may not be able to develop product candidates that are safe and effective inhibitors of all or any of these targets. Even if we are successful in building a product pipeline, the potential product candidates that we identify may not be suitable for clinical development for a number of reasons, including causing harmful side effects or demonstrating other characteristics that indicate a low likelihood of receiving marketing approval or achieving market acceptance. If our methods of identifying potential product candidates fail to produce a pipeline of potentially viable product candidates, then our success as a business will be dependent on the success of fewer potential product candidates, which introduces risks to our business model and potential limitations to any success we may achieve.

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.

The risk of failure for all of our product candidates is high. 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. Clinical testing is expensive, difficult to design and implement and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Further, the results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. For instance, the FDA issued a non-approval letter for tipifarnib in AML, in June 2005. 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.

We may experience delays in our clinical trials and we do not know whether planned clinical trials will begin or enroll patients on time, need to be redesigned or be completed on schedule, if at all. If the FDA or IRBs have comments on our

study plans for our ongoing or planned Phase 2 clinical trials of tipifarnib that we are required to address, such studies may be delayed. There can be no assurance that the FDA will not put any of our product candidates on clinical hold in the future. 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. Clinical trials may be delayed, suspended or prematurely terminated because costs are greater than we anticipate or for a variety of reasons, such as:

- delay or failure in reaching agreement with the FDA or a comparable foreign regulatory authority on a clinical trial design that we are able to execute;
- delay or failure in obtaining authorization to commence a clinical trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical trial;
- delays in reaching, or failure to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective clinical trial sites;
- inability, delay, or failure in identifying and maintaining a sufficient number of clinical trial sites, many of which may already be engaged in other clinical programs;
- delay or failure in recruiting and enrolling suitable subjects to participate in a clinical trial;
- delay or failure in having subjects complete a clinical trial or return for post-treatment follow-up;
- clinical sites and investigators deviating from clinical trial protocol, failing to conduct the clinical trial in accordance with regulatory requirements, or dropping out of a clinical trial;
- lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional clinical studies and increased expenses associated with the services of our CROs and other third parties;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to redesign or modify our clinical trial protocols, conduct additional clinical trials or abandon product development programs;
- 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;
- we may experience delays or difficulties in the enrollment of patients whose tumors harbor the specific genetic alterations that our product candidates are designed to target;
- 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 difficulty partnering with experienced CROs that can screen for patients whose tumors harbor the applicable genetic alterations and run our clinical trials effectively;
- regulators or IRBs 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 supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; or
- there may be changes in governmental regulations or administrative actions.

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 clinical 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 that includes significant use or distribution restrictions or safety warnings that would reduce the potential market for our products or inhibit our ability to successfully commercialize our products;
- be subject to additional post-marketing restrictions and/or testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know whether any of our preclinical studies or clinical trials 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.

We may not be successful in advancing the clinical development of our product candidates, including tipifarnib.

In order to execute on our strategy of advancing the clinical development of our product candidates, we have designed our Phase 2 clinical trials of tipifarnib, and expect to design future clinical trials, to include patients whose tumors harbor the applicable genetic alterations that we believe contribute to particular cancer subsets. Our goal in doing this is to enroll patients who have the highest probability of responding to the drug, in order to show early and statistically significant evidence of clinical efficacy. If we are unable to include patients whose tumors harbor the applicable genetic alterations, or if our product fails to work as we expect, our ability to assess the therapeutic effect, seek participation in FDA expedited review and approval programs, including Breakthrough Therapy, Fast Track Designation, Priority Review and Accelerated Approval, or otherwise to seek to accelerate clinical development and regulatory timelines, could be compromised, resulting in longer development times, larger clinical trials and a greater likelihood of not obtaining regulatory approval. In addition, because the natural history of different tumor types is variable, we will need to study our product candidates, including tipifarnib, in clinical trials specific for a given tumor type and this may result in increased time and cost. Even if our product candidate demonstrates efficacy in a particular tumor type, we cannot guarantee that any product candidate, including tipifarnib, will behave similarly in all tumor types, and we will be required to obtain separate regulatory approvals for each tumor type we intend a product candidate to treat. If any of our clinical trials are unsuccessful, our business will suffer.

Preclinical and clinical testing of tipifarnib that has been conducted to date may not have been performed in compliance with applicable regulatory standards, which could lead to increased costs or material delays for their further development.

We licensed the rights to develop our lead product candidate, tipifarnib, from Janssen in December 2014, and the development of tipifarnib prior to our license was conducted wholly by Janssen or any third parties with which it had contracted. As a result, we were not involved with nor did we have any control over any of those development activities. Because we had no input on Janssen's development activities relating to tipifarnib, we may discover that all or certain elements of the clinical trials and studies it performed have not been in compliance with applicable regulatory standards or have otherwise been deficient, particularly relative to current requirements as development of tipifarnib began in the 1990's. Any such deficiency in the prior development of tipifarnib may adversely affect our ability to obtain regulatory approval for tipifarnib.

If serious adverse events 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 preclinical or clinical trials or have characteristics that are unexpected, we may need to interrupt, delay or 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. Tipifarnib has been studied in more than 5,000 oncology patients and was generally well tolerated and exhibited a manageable side effect profile. The most common hematologic adverse events of any grade were neutropenia (low white blood cell count), anemia and thrombocytopenia (low platelet count). The most common non-hematologic adverse events of any grade were gastrointestinal system disorders (nausea, anorexia, diarrhea and vomiting), fatigue and rash.

Treatment discontinuation across the prior tipifarnib clinical studies has been in the range of approximately 20-25%. There is no guarantee that additional or more severe side effects will not be identified through further clinical studies. Rights to develop tipifarnib in certain non-oncology indications have been granted by Janssen to EB Pharma LLC, or EB Pharma, a subsidiary of Eiger BioPharmaceuticals. Janssen may grant rights to other non-oncology indications to other third parties.

Undesirable side effects may be identified in clinical trials that EB Pharma or any other third party may conduct in non-oncology indications, which may negatively impact the development, commercialization or potential value of tipifarnib. These or other drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims. Many compounds developed in the biopharmaceutical industry that initially showed promise in early-stage testing for treating cancer have later been found to cause side effects that prevented further development of the compound. Any of these occurrences may harm our business, financial condition and prospects significantly.

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 must focus on a limited number of research programs and product candidates and on 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 discovery and preclinical development programs and product candidates for specific indications may not yield any commercially viable products.

Failure to successfully validate, develop and obtain regulatory approval for companion diagnostics for our product candidates could harm our drug development strategy and operational results.

As one of the central elements of our business strategy and clinical development approach, we seek to screen and identify subsets of patients with a genetic alteration who may derive meaningful benefit from our drug product candidates. To achieve this, certain of our programs may be dependent on the development and commercialization of a companion diagnostic. We intend to partner development of companion diagnostics for use in clinical trials and, if successful, for commercialization of our product candidates. Companion diagnostics are developed in conjunction with clinical programs for the associated product and are subject to regulation as medical devices. Each agency that approves a product will independently need to approve the companion diagnostic before or concurrently with its approval of the product candidate, and before a product can be commercialized. The approval of a companion diagnostic as part of the product label will limit the use of the product candidate to only those patients who express the specific genetic alteration it was developed to detect. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process or transferring that process to commercial partners or negotiating insurance reimbursement plans, all of which may prevent us from completing our clinical trials or commercializing our products on a timely or profitable basis, if at all.

In our Phase 2 trial of tipifarnib in advanced cancers with HRAS mutations, patients are being enrolled based on information from the clinical sites on the patients' tumor HRAS mutation status. Typically this information is being obtained by the clinical sites from the NGS panels used by the site to characterize patients' tumors. If the results of our Phase 2 clinical trials are positive, we plan to partner development and validation of a companion diagnostic test to aid in the selection of patients with HRAS mutant tumors in subsequent clinical trials of tipifarnib and to prepare and submit an IDE for use of the assay in the clinical trial. We expect that the companion diagnostic test will either be a qPCR-based assay or an NGS-based assay. The results of NGS panels being currently used at sites may not be accurate or consistent across sites, and our development of tipifarnib or a companion diagnostic may be delayed or complicated by a change in assay methodology.

Companion diagnostics are subject to regulation by the FDA and comparable foreign regulatory authorities as medical devices and require separate clearance or approval prior to their commercialization. To date, the FDA has required premarket approval of all companion diagnostics for cancer therapies. We and our third-party collaborators may encounter difficulties in developing and obtaining approval for these companion diagnostics. Any delay or failure by us or third- party collaborators to develop or obtain regulatory approval of a companion diagnostic could delay or prevent approval of our related product candidates.

Failure by us or our third-party collaborators to successfully commercialize companion diagnostics developed for use with our product candidates could harm our ability to commercialize these product candidates.

Even if we or our companion diagnostic collaborators successfully obtain regulatory approval for the companion diagnostics for our product candidates, our collaborators:

- may not perform their obligations as expected;

- may not pursue commercialization of companion diagnostics for our 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.

Additionally, we or our collaborators may encounter production difficulties that could constrain the supply of the companion diagnostics, affect the ease of use, affect the price or have difficulties gaining acceptance of the use of the companion diagnostics in the clinical community.

If companion diagnostics for use with our product candidates fail to gain market acceptance, our ability to derive revenues from sales of our product candidates could be harmed. If we or 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 product candidates or do so on commercially reasonable terms, which could adversely affect and delay the development or commercialization of our product candidates.

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 must be approved by the FDA pursuant to an NDA in the United States and by the European Medicines Agency, or EMA, and similar regulatory authorities outside the United States prior to commercialization. The process of obtaining marketing approvals, both in the United States and abroad, is expensive and takes many years, 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. 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 no 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. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are 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. 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 also cause delays in or prevent the approval of an application.

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 benefit from available regulatory exclusivity periods if another company obtains regulatory approval for tipifarnib before we do.

As the composition of matter patents covering tipifarnib expire in 2016 in the United States and in countries in Europe, our commercial strategy for tipifarnib relies on obtaining patents covering methods of use of tipifarnib and on non-patent regulatory exclusivity. In the United States, a pharmaceutical manufacturer may obtain five years of non-patent exclusivity upon FDA approval of an NDA for an NCE, which is a drug that contains an active moiety that has not been approved by the FDA in any other NDA. An "active moiety" is defined as the molecule or ion responsible for the drug substance's physiological or pharmacologic action. During the five year exclusivity period, the FDA cannot accept for filing any ANDA seeking approval of a generic version of that drug or any Section 505(b)(2) NDA for the same active moiety and that relies on the FDA's findings regarding that drug, except that the FDA may accept an application for filing after four years if the

follow-on applicant makes a paragraph IV certification. EB Pharma has licensed rights from Janssen to develop tipifarnib in certain indications outside of our exclusive field of oncology and Janssen may license rights to other non-oncology indications to other third parties. If EB Pharma or another third party obtains regulatory approval for tipifarnib in a non-oncology indication before we obtain regulatory approval in one of our oncology indications, the five year exclusivity period would commence on the date upon which EB Pharma or another third party obtains regulatory approval, and as a result, the period of regulatory exclusivity to which we may be entitled may be reduced or eliminated and the commercial prospects for tipifarnib would be harmed as a result.

Additionally, if EB Pharma or another third party obtains approval of tipifarnib for another indication outside of oncology, EB Pharma or the other third party may sell tipifarnib at a lower price, which could adversely affect the price at which we could sell tipifarnib for oncology indications.

We may not be able to obtain orphan drug exclusivity for the product candidates for which we seek it, which could limit the potential profitability of such 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 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 receives the designation, then the product is entitled to a period of marketing exclusivity that precludes the applicable regulatory authority from approving another marketing application for the same drug for the same indication during the exclusivity 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, if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

We expect that we may in the future pursue an orphan drug designation for at least some of our product candidates, including tipifarnib. However, obtaining an orphan drug designation can be difficult, and we may not be successful in doing so for any of our product candidates. Even if we were to obtain orphan drug exclusivity for a product candidate, that exclusivity may not effectively protect the product from the competition of different drugs for the same condition, which could be approved during the exclusivity period. Additionally, after an orphan drug is approved, the FDA could subsequently approve another application for the same drug for the same condition if the FDA concludes that the later drug is shown to be safer, more effective or makes a major contribution to patient care. The failure to obtain an orphan drug designation for any product candidates we may develop for the treatment of rare cancers, and/or the inability to maintain that designation for the duration of the applicable exclusivity period, could reduce our ability to make sufficient sales of the applicable product candidate to balance our expenses incurred to develop it, which would have a negative impact on our operational results and financial condition.

If we obtain an orphan drug designation and FDA approval of tipifarnib for an oncology indication, we would be entitled to seven years of marketing exclusivity for that orphan drug indication. However, if a competitor obtained approval of a generic form of tipifarnib for another indication, physicians would not be prevented from prescribing the generic drug for the orphan indication during the period of marketing exclusivity. Such prescribing practices could adversely affect the sales of tipifarnib for the orphan indication.

A Fast Track Designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process and does not increase the likelihood that our product candidates will receive marketing approval.

We do not currently have Fast Track Designation for any of our product candidates but intend to seek such designation. 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 the FDA Fast Track Designation. The FDA has broad discretion whether or not to grant this designation. Even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program. Many drugs that have received Fast Track Designation have failed to obtain drug approval.

A Breakthrough Therapy Designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive marketing approval.

We do not currently have Breakthrough Therapy Designation for any of our product candidates, but we may seek such designation. 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 that have been designated as Breakthrough Therapies, interaction and communication between the FDA and the sponsor can help to identify the most efficient path for development.

Designation as a Breakthrough Therapy is within the discretion of the FDA. Accordingly, even if we believe, after completing early clinical trials, that 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. In any event, the receipt of a Breakthrough Therapy designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as Breakthrough Therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification and rescind such designations.

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 the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside 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 our third-party collaborators may not obtain approvals from regulatory authorities outside 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 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.

Any product candidate for which we obtain marketing approval will be subject to extensive post-marketing regulatory requirements and 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.

Our product candidates and the activities associated with their development and commercialization, including their testing, manufacture, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by FDA and other regulatory authorities. These requirements include, without limitation, 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, including periodic inspections by the FDA and other regulatory authorities, requirements regarding the distribution of samples to physicians, tracking and reporting of payments to physicians and other healthcare providers, and recordkeeping.

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 use of their products and if we promote our products beyond their approved indications, we may be subject to enforcement action for off-label promotion. Violations of the FD&C Act relating to the promotion of prescription drugs may lead to investigations alleging violations of federal and state healthcare 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 or untitled 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.

Our relationships with customers and third-party payors and our general business operations will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings, among other penalties.

Healthcare providers 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 current and future arrangements with healthcare providers, 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 and entities 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 and civil monetary penalties laws, including the civil False Claims Act, impose 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;
- HIPAA imposes criminal and civil liability for, among other things, executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the HITECH 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 used and disclosed by covered entities and their business associates;

- the federal Physician Payments Sunshine Act requires applicable manufacturers of certain drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, with specific exceptions, to report annually to CMS information related to payments and other transfers of value to physicians and teaching hospitals, as well as certain manufacturers and group purchasing organizations to report annually ownership and investment interests held by physicians or their immediate family; 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, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, 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.

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.

For example, in March 2010, President Obama signed into law the ACA, a sweeping law intended to broaden access to health insurance, improve quality, 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 ACA of importance to our potential product candidates and our business 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 of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for a manufacturer's outpatient drugs to be covered under Medicare Part D;
- 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 certain financial arrangements with physicians and teaching hospitals;
- a new requirement to annually report information regarding 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.

Since its enactment there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013, that due to subsequent legislative amendments, will stay in effect through 2025 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to certain 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, which could have a material adverse effect on customers for our drugs, if approved, and accordingly, our financial operations. Further, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products. For example, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products.

We expect that the ACA, 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 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 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 for 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 discovery, preclinical development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Risks Related to Our Dependence on Third Parties

We rely on third-party contractors and organizations 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 rely on third party contractors, clinical data management organizations, independent contractors, medical institutions and clinical investigators to support our pre-clinical development activities and conduct our clinical trials, including our Phase 2 clinical trials of tipifarnib. These agreements may terminate for a variety of reasons, including a failure to perform by the third parties. If we are required to enter into alternative arrangements, our product development activities would be delayed.

We compete with many other companies, some of which may be our competitors, for the resources of these third parties. Large pharmaceutical companies often have significantly more extensive agreements and relationships with such third-party providers, and such third-party providers may prioritize the requirements of such large pharmaceutical companies over ours. The third parties on whom we rely may terminate their engagements with us at any time, which may cause delay in the development and commercialization of our product candidates. If any such third party terminates its engagement with us or fails to perform as agreed, we may be required to enter into alternative arrangements, which would result in significant cost and delay to our product development program. Moreover, our agreements with such third parties generally do not provide assurances regarding employee turnover and availability, which may cause interruptions in the research on our product candidates by such third parties.

Our reliance on these third parties to conduct our clinical trials 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 clinical trial. Moreover, the FDA and other regulatory authorities require us to comply with 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 clinical trial participants are protected. We are also 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.

Additionally, we rely substantially on third-party data managers for our clinical trial data. There is no assurance that these third parties will not make errors in the design, management or retention of our data or data systems. There is no assurance that these third parties will pass FDA or other regulatory audits, which could delay or prevent regulatory approval.

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 depend on 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 at an acceptable cost and quality, which could delay, prevent or impair our development or commercialization efforts.

We do not own or operate facilities for the manufacture of our product candidates, and we do not have any manufacturing personnel. We currently have no plans to build our own clinical or commercial scale manufacturing capabilities. Janssen has provided us with its existing inventory of clinical supply of tipifarnib. Janssen also provided us with its existing inventory of crude drug substance and bulk key intermediate for manufacture of drug substance for tipifarnib. A portion of the clinical supply of tablets of tipifarnib provided by Janssen have a non-uniform surface where the film coating on the tablets has worn away to a varying degree. We believe this surface erosion is a cosmetic defect only and has no impact on patient safety or the effectiveness of the tablets, and an insignificant impact on taste masking, and that this clinical supply will support our ongoing and planned Phase 2 clinical trials for tipifarnib. However there is no guarantee that clinical trial participants will accept all the tablets and that our existing clinical supply will be sufficient for our ongoing and planned Phase 2 clinical trials or for any unanticipated extension of our Phase 2 clinical trials. If we are required to manufacture additional clinical supplies our Phase 2 clinical trials may be delayed. We rely, and expect to continue to rely, on third parties, for the manufacture of our other product candidates for preclinical and clinical testing. We will rely on third parties as well 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 other third parties to store and distribute drug supplies for our clinical trials.

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.

Any performance failure on the part of our existing or future manufacturers or 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 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 cGMP regulations or similar regulatory requirements outside 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.

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.

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 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 cancer treatments like chemotherapy and radiation therapy are well established in the medical community, and doctors may continue to rely on these treatments to the exclusion of our product candidates. In addition, physicians, patients and third-party payors may prefer other novel products to ours. 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 safety and potential advantages and disadvantages 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 target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of our marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement, including patient cost-sharing programs such as copays and deductibles;
- our ability to develop or partner with third-party collaborators to develop companion diagnostics;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our products together with other medications.

We currently have no marketing and sales force. If we are unable to establish effective sales or marketing capabilities or enter into agreements with third parties to sell or market our product candidates if they obtain regulatory approval, we may not be able to effectively sell or market our product candidates, if approved, or generate product revenues.

We currently do not have a marketing or sales team for the marketing, sales and distribution of any of our product candidates that are able to obtain regulatory approval. In order to commercialize any product candidates, we must build on a territory-by-territory basis marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. If our product candidates receive regulatory approval, we intend to establish an internal sales or marketing team with technical expertise and supporting distribution capabilities to commercialize our product candidates, which will be expensive and time consuming and will require significant attention of our executive officers to manage. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of any of our products that we obtain approval to market. With respect to the commercialization of all or certain of our product candidates, we may choose to collaborate, either globally or on a territory-by-territory basis, with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems. If we are unable to enter into such arrangements when needed on acceptable terms or at all, we may not be able to successfully commercialize any of our product candidates that receive regulatory approval or any such commercialization may experience delays or limitations. If we are not successful in commercializing our product candidates, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses.

We face substantial competition, which may result in others discovering, developing or commercializing competing 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 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 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, which may directly compete with tipifarnib, KO-947 and any other future product candidates.

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 and or slow our regulatory approval. 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 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.

The insurance coverage and reimbursement status of newly-approved products is uncertain. Failure to obtain or maintain coverage and adequate reimbursement for new or current products could limit our ability to market those products and decrease our ability to generate revenue.

The availability and extent of coverage and reimbursement by governmental and private payors is essential for most patients to be able to afford expensive treatments. Sales of our product candidates will depend substantially, both domestically and abroad, on the extent to which the costs of our product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third-party payors. If reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize our product candidates. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the United States, the principal decisions about reimbursement for new medicines are typically made by the CMS, an agency within the U.S. Department of Health and Human Services, as CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare. Private payors often, but not always, follow CMS's decisions regarding coverage and reimbursement. It is difficult to predict what CMS will decide with respect to coverage and reimbursement for fundamentally novel products such as ours, as there is no body of established practices and precedents for these new products. One payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. Further, a payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. We or our collaborators may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Nonetheless, our product candidates may not be considered medically necessary or cost-effective.

Reimbursement agencies in Europe may be more conservative than CMS. For example, a number of cancer drugs have been approved for reimbursement in the United States and have not been approved for reimbursement in certain European countries. Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada, and other countries has and will continue to put pressure on the pricing and usage of our product candidates. In many countries,

the prices of medical products are subject to varying price control mechanisms as part of national health systems. In general, the prices of medicines under such systems are substantially lower than in the United States. Other countries allow companies to fix their own prices for medicines, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenues and profits.

Moreover, increasing efforts by governmental and third-party payors, in the United States and abroad, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of any of our product candidates, due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products into the healthcare market.

In addition to CMS and private payors, professional organizations such as the National Comprehensive Cancer Network and the American Society of Clinical Oncology can influence decisions about reimbursement for new medicines by determining standards for care. In addition, many private payors contract with commercial vendors who sell software that provide guidelines that attempt to limit utilization of, and therefore reimbursement for, certain products deemed to provide limited benefit to existing alternatives. Such organizations may set guidelines that limit reimbursement or utilization of our products.

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;
- significant costs to defend the related litigation;
- substantial monetary awards to clinical 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.

Our current product liability insurance coverage 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 Intellectual Property

If we are unable to obtain and maintain intellectual property protection for our technology and products, or if the scope of the intellectual property 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.

We intend to rely upon a combination of regulatory exclusivity periods, patents, trade secret protection, confidentiality agreements, and license agreements to protect the intellectual property related to our current product candidates and development programs. If the breadth or strength of protection provided by any patents, patent applications or future patents we may own, license, or pursue with respect to any of our current or future product candidates or products is threatened, it

could threaten our ability to commercialize any of our current or future product candidates or products. Further, if we encounter delays in our development efforts, the period of time during which we could market any of our current or future product candidates or products under any patent protection we obtain would be reduced. Given the amount of time required for the development, testing and regulatory review of new product candidates or products, patents protecting such candidates might expire before or shortly after such product candidates or products are commercialized.

Our patent rights may not protect our patent protected products and product candidates if competitors devise ways of making products that compete with us without legally infringing our patent rights. For example, our patent rights in tipifarnib are limited in ways that affect our ability to exclude third parties from competing against us. In particular, the patent term for the composition of matter patents covering the API of tipifarnib expire in 2016 in the United States, countries in Europe and other jurisdictions. Composition of matter patents on APIs are generally considered to be the strongest form of intellectual property protection because such patents provide protection without regard to any particular method of use or manufacture or formulation of the API used. Patent term extension may be available in the United States to account for regulatory delays in obtaining human marketing approval for tipifarnib; however, only one patent may be extended per marketed compound. Under our license agreement with Janssen, we and Janssen agree to cooperate in obtaining available patent term extensions. We and Janssen may not reach agreement and no patent term extension may be obtained. Additionally, the applicable authorities, including the U.S. PTO and the FDA, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to patents, or may grant more limited extensions than requested. If this occurs, our competitors who obtain the requisite regulatory approval can offer products with the same API as tipifarnib so long as the competitors do not infringe any method of use or formulations patents that we may hold. Competitors may take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case.

We expect that following expiration of composition of matter patents and any regulatory exclusivity we are able to obtain, competitors may manufacture and sell generic versions of tipifarnib, at a lower price, which would reduce tipifarnib's revenues. In certain jurisdictions, legislation mandates generic substitution for brand name drugs.

We depend on our licensors to prosecute and maintain patents and patent applications that are material to our business. Any failure by our licensors to effectively protect these intellectual property rights could adversely impact our business and operations.

We have licensed patent rights from third parties for some of our development programs, including tipifarnib from Janssen and compounds in our menin-MLL program from the University of Michigan. As a licensee of third parties, we rely on these third parties to file and prosecute patent applications and maintain patents and otherwise protect the licensed intellectual property under some of our license agreements. We have not had and do not have primary control over these activities for certain of our patents or patent applications and other intellectual property rights. We cannot be certain that such activities by third parties have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents or other intellectual property rights. Pursuant to the terms of the license agreements with some of our licensors, the licensors may have the right to control enforcement of our licensed patents or defense of any claims asserting the invalidity of these patents and even if we are permitted to pursue such enforcement or defense, we will require the cooperation of our licensors. We cannot be certain that our licensors will allocate sufficient resources or prioritize their or our enforcement of such patents or defense of such claims to protect our interests in the licensed patents. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent us from continuing to license intellectual property that we may need to operate our business.

With respect to the patent portfolio for tipifarnib, which is in-licensed from Janssen, Janssen maintains rights to prosecute and maintain patents and patent applications within the portfolio as well as to assert such patents against infringers within and outside the scope of our license, and to defend such patents against claims of invalidity and unenforceability. Although we have rights to consult with Janssen on actions taken as well as back-up rights of prosecution and enforcement, rights to tipifarnib granted to another licensee, such as EB Pharma, could potentially influence Janssen's interests in the exercise of its prosecution, maintenance and enforcement rights in a manner that may favor the interests of such other licensee as compared with us.

If we breach any of the agreements under which we license from third parties the commercialization rights to our product candidates, we could lose license rights that are important to our business and our operations could be materially harmed.

We have in-licensed from Janssen the use, development and commercialization rights in oncology indications for our lead product candidate, tipifarnib. We have also in-licensed rights to potential product candidates in other programs in our

pipeline. As a result, our current business plans are dependent upon our satisfaction of certain conditions to the maintenance of the Janssen agreement and the rights we license under it and our other in-license agreements. The Janssen license agreement provides that we are subject to diligence obligations relating to the commercialization and development of tipifarnib, milestone payments, royalty payments and other obligations. If we fail to comply with any of the conditions or obligations or otherwise breach the terms of our license agreement with Janssen, or any of our other license agreements or license agreements we may enter into on which our business or product candidates are dependent, Janssen or other licensors may have the right to terminate the applicable agreement in whole or in part and thereby extinguish our rights to the licensed technology and intellectual property and/or any rights we have acquired to develop and commercialize certain product candidates, including, with respect to our license agreement with Janssen, tipifarnib. The loss of the rights licensed to us under our license agreement with Janssen, or our other license agreements or any future license agreement that we may enter granting us rights on which our business or product candidates are dependent, would eliminate our ability to further develop the applicable product candidates and would materially harm our business, prospects, financial condition and results of operations.

The patent applications of pharmaceutical and biotechnology companies involve highly complex legal and factual questions, which, if determined adversely to us, could negatively impact our patent position.

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, India and China do not allow patents for methods of treating the human body. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether we or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we or our licensors 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 U.S. patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The U.S. PTO 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. PTO, 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. Even if our owned and licensed patents might provide such protection or competitive advantage, we may not have the resources to effectively enforce our rights under such patents, which can be expensive and time-consuming. Further, 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.

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

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the U.S. PTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we employ an outside firm and rely on our outside counsel to pay these fees due to non-U.S. patent agencies. The U.S. PTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

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

Because competition in our industry is intense, competitors may infringe or otherwise violate our issued patents, patents of our licensors 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 also elect to enter into license agreements in order to settle patent infringement claims or to resolve disputes prior to litigation, and any such license agreements may require us to pay royalties and other fees that could be significant. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure.

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. PTO. 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.

We may not be successful in obtaining or maintaining necessary rights for our development pipeline through acquisitions and in-licenses.

Presently we have rights to intellectual property to develop tipifarnib in the field of oncology, including patents and patent applications we exclusively licensed from Janssen, as well as exclusive worldwide licenses for all therapeutic indications for certain compounds in our other programs, including in our menin-MLL program. Because our programs may involve additional product candidates that may require the use of proprietary rights held by third parties, the growth of our business may depend in part on our ability to acquire, in-license or use these proprietary rights. Additionally, a companion diagnostic may require that we or a third-party collaborator developing the diagnostic acquire proprietary rights held by third parties, which may not be available. We may be unable to acquire or in-license any compositions, methods of use, or other third-party intellectual property rights from third parties that we identify. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

For example, we may collaborate with U.S. and foreign academic institutions to accelerate our discovery and preclinical development work under written agreements with these institutions. Typically, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such right of first negotiation for intellectual property, we may be unable to negotiate a license within the specified time frame or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment. If we are unable to successfully obtain rights to required third-party intellectual property rights, our business, financial condition and prospects for growth could suffer.

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 seek to protect our confidential proprietary information, in part, by entering into confidentiality and invention or patent assignment agreements with our employees and consultants, however, we cannot be certain that such agreements have been entered into with all relevant parties. Moreover, to the extent we enter into such agreements, 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 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 Employee Matters, Managing Growth and Macroeconomic Conditions

We currently have a limited number of employees, are highly dependent on our Chief Executive Officer and our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are an early-stage clinical development company with a limited operating history, and, as of December 31, 2015, we had only 24 employees. We are highly dependent on the expertise of Troy E. Wilson, Ph.D., J.D., our President and Chief Executive Officer, Antonio Gualberto, M.D., Ph.D., our Chief Medical Officer, Yi Liu, Ph.D., our Chief Scientific Officer, and Pingda Ren, Ph.D., our Senior Vice President, Chemistry and Pharmaceutical Sciences, as well as the other principal members of our management, scientific and clinical teams. 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. Additionally, Dr. Wilson currently also serves as President and Chief Executive Officer of Avidity NanoMedicines, LLC. As a result, Dr. Wilson is not able to devote all of his business time and attention to our business. Conflicts may arise in the future if there are competing demands on Dr. Wilson's time and attention and our business may be harmed as a result.

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 for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our discovery and preclinical 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 regulatory affairs and commercial, 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.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The recent global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the recent global financial crisis, could result in a variety of risks to our business, including our ability to raise additional capital when needed on acceptable terms, if at all. This is particularly true in Europe, which is undergoing a continued severe economic crisis. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems and those of our CROs, collaborators and third-parties on whom we rely are vulnerable to damage from computer viruses, unauthorized access, natural disasters,

terrorism, war and telecommunication and electrical failures. While we have not experienced any such system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and we may incur substantial costs to attempt to recover or reproduce the data. If any disruption or security breach resulted in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and/or the further development of our product candidates could be delayed.

Our operations are vulnerable to interruption by natural disasters, power loss, terrorist activity and other events beyond our control, the occurrence of which could materially harm our business.

Businesses located in California have, in the past, been subject to electrical blackouts as a result of a shortage of available electrical power, and any future blackouts could disrupt our operations. We are vulnerable to a major earthquake, wildfire and other natural disasters, and we have not undertaken a systematic analysis of the potential consequences to our business as a result of any such natural disaster and do not have an applicable recovery plan in place. We do not carry any business interruption insurance that would compensate us for actual losses from interruption of our business that may occur, and any losses or damages incurred by us could cause our business to materially suffer.

Risks Related to Ownership of our Common Stock

Our stock price may fluctuate significantly and you may have difficulty selling your shares based on current trading volumes of our stock.

Our common stock has been listed on the NASDAQ Global Select Market under the symbol “KURA” since November 5, 2015. From September 16, 2015 through November 4, 2015, our common stock was quoted for trading on the OTC Markets—OTCQB tier, or OTCQB, in very limited volume under the symbol “KURO.” Prior to September 16, 2015, our common stock was not publicly-traded. The high and low price per share of our common stock as reported by NASDAQ during the period from November 5, 2015 until December 31, 2015, were $6.72 and $9.06, respectively. The high and low bid quotations per share of our common stock as reported by the OTCQB during the period from September 16, 2015 through November 4, 2015 were $25.00 and $10.00, respectively. We cannot predict the extent to which investor interest in our company will sustain an active trading market on the NASDAQ Global Select Market or any other exchange in the future. We have several stockholders, including affiliated stockholders, who hold substantial blocks of our stock. Sales of large numbers of shares by any of our large stockholders could adversely affect our trading price, particularly given our small historic trading volumes. If stockholders holding shares of our common stock sell, indicate an intention to sell, or if it is perceived that they will sell, substantial amounts of their common stock in the public market, the trading price of our common stock could decline. Moreover, if an active trading market is not sustained or if the volume of trading is limited, holders of our common stock may have difficulty selling their shares.

The price of our common stock may be volatile and may be influenced by numerous factors, some of which are beyond our control.

The market for our common stock could fluctuate substantially due to a variety of factors, some of which may be beyond our control. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this Annual Report, these factors include:

- the product candidates we seek to pursue, and our ability to obtain rights to develop, commercialize and market those product candidates;
- our decision to initiate a clinical trial, not to initiate a clinical trial or to terminate an existing clinical trial;
- actual or anticipated adverse results or delays in our clinical trials;
- our failure to commercialize our product candidates, if approved;
- unanticipated serious safety concerns related to the use of any of our product candidates;
- adverse regulatory decisions;
- additions or departures of key scientific or management personnel;
- changes in laws or regulations applicable to our product candidates, including without limitation clinical trial requirements for approvals;

- disputes or other developments relating to patents and other proprietary rights and our ability to obtain patent protection for our product candidates;
- our dependence on third parties, including CROs as well as our potential partners that produce companion diagnostic products;
- failure to meet or exceed any financial guidance or expectations regarding development milestones that we may provide to the public;
- actual or anticipated variations in quarterly operating results, liquidity or other indicators of our financial condition;
- failure to meet or exceed the estimates and projections of the investment community;
- overall performance of the equity markets and other factors that may be unrelated to our operating performance or the operating performance of our competitors, including changes in market valuations of similar companies;
- market conditions or trends in the biotechnology and biopharmaceutical industries;
- introduction of new products offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- our ability to maintain an adequate rate of growth and manage such growth;
- issuances of debt or equity securities;
- sales of our common stock by us or our stockholders in the future, or the perception that such sales could occur;
- trading volume of our common stock;
- ineffectiveness of our internal control over financial reporting or disclosure controls and procedures;
- general political and economic conditions;
- effects of natural or man-made catastrophic events; and
- other events or factors, many of which are beyond our control.

In addition, the stock market in general, and the stocks of small-cap biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. These events may also lead to securities litigation, which can be expensive and time-consuming to defend, regardless of the merit or outcome. The realization of any of the above risks or any of a broad range of other risks, including those described in these “Risk Factors,” could have a dramatic and material adverse impact on the market price of our common stock.

We have broad discretion in the use of our cash and may not use our cash effectively, which could adversely affect our results of operations.

Our management has broad discretion in the application of our cash resources. Because of the number and variability of factors that will determine our use of our cash resources, our management might not apply our cash in ways that ultimately increase the value of our common stock. The failure by our management to apply our cash effectively could harm our business. Pending their use, we may invest our cash in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders. If we do not invest or apply our cash in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

FINRA sales practice requirements may limit a stockholder’s ability to buy and sell our stock.

The Financial Industry Regulatory Authority, or FINRA, has adopted rules requiring that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative or low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer’s financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that

speculative or low-priced securities will not be suitable for at least some customers. If these FINRA requirements are applicable to us or our securities, they may make it more difficult for broker-dealers to recommend that at least some of their customers buy our common stock, which may limit the ability of our stockholders to buy and sell our common stock and could have an adverse effect on the market for and price of our common stock.

Because we became a reporting company under the Exchange Act by means other than a traditional underwritten initial public offering, we may not be able to continue to attract the attention of research analysts at major brokerage firms.

Because we did not become a reporting company by conducting an underwritten initial public offering of our common stock, security analysts of brokerage firms may not continue to provide coverage of our company. In addition, investment banks may be less likely to agree to underwrite secondary offerings on our behalf than they might if we became a public reporting company by means of an underwritten initial public offering, because they may be less familiar with our company as a result of more limited coverage by analysts and the media, and because we became public at an early stage in our development. The failure to receive research coverage or support in the market for our shares will have an adverse effect on our ability to develop a liquid market for our common stock.

The resale of shares covered by our effective shelf registration statement could adversely affect the market price of our common stock in the public market, should one develop, which result would in turn negatively affect our ability to raise additional equity capital.

The sale, or availability for sale, of our common stock in the public market may adversely affect the prevailing market price of our common stock and may impair our ability to raise additional capital by selling equity or equity-linked securities. We filed a registration statement with the SEC, which was declared effective on July 21, 2015, to register the resale of 14,279,820 shares of our common stock, which represents substantially all of the shares of our common stock issued in connection with the Merger. The shelf registration statement permits the resale of these shares at any time, subject to applicable lock-up restrictions. The resale of a substantial number of shares of our common stock in the public market could adversely affect the market price for our common stock and make it more difficult for you to sell shares of our common stock at times and prices that you feel are appropriate. Furthermore, we expect that, because there are a large number of shares registered pursuant to the shelf registration statement, the selling stockholders named in such registration statement will continue to offer shares covered by the shelf registration statement for a significant period of time, the precise duration of which cannot be predicted. Accordingly, the adverse market and price pressures resulting from an offering pursuant to the shelf registration statement may continue for an extended period of time and continued negative pressure on the market price of our common stock could have a material adverse effect on our ability to raise additional equity capital.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur in the future. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. Our directors, executive officers and certain stockholders who own an aggregate of approximately 5,533,727 shares of our common stock are subject to a lock-up agreement with us contained in the Registration Rights Agreement and/or a separate lock-up agreement with the underwriters pursuant to which these persons have agreed, subject to specified exceptions, not to sell, transfer, dispose of, contract to sell, sell any option or contract to purchase, or otherwise transfer or dispose of, directly or indirectly, without the written consent of the underwriters, any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock for a period of 180 days after the date of the final prospectus for our November 2015 public offering. Once these lock-up provisions expire, these shares, which are registered on our shelf registration statement that was declared effective on July 21, 2015, can be freely sold in the public market, which could cause the market price of our common stock to drop significantly.

At any time when our shelf registration statement may not be available, the liquidity and price of our common stock could significantly decline and it may be difficult for you to sell your shares, if at all.

Although we filed a registration statement with the SEC, which was declared effective on July 21, 2015, to register the resale of 14,279,820 shares of our common stock, which represents substantially all of the shares of our common stock issued in connection with the Merger, and the shelf registration statement permits the resale of these shares at any time, subject to applicable lock-up restrictions, such registration may not be available at all times. We are not currently eligible to register the

resale of our common stock included in our shelf registration statement on Form S-3, and, therefore, have registered the resale of these securities on Form S-1. As a result, under certain circumstances, we must update the registration statement for the resale of such shares of our common stock by filing post-effective amendments to the registration statement that will not be effective until each is declared effective by the SEC. Between the time it is determined that the registration statement must be updated by a post-effective amendment and the time the SEC declares the applicable post-effective amendment effective, the registration statement will not be available for use and the price of our common stock could decline during that time. The SEC has broad discretion to determine whether any registration statement (including any post-effective amendment) will be declared effective and may delay or deny the effectiveness of any registration statement or post-effective amendment filed by us for a variety of reasons. Therefore, at any time when our shelf registration statement may not be available, the liquidity and price of our common stock could significantly decline and it may be difficult for you to sell your shares, if at all.

We will incur increased costs associated with, and our management will need to devote substantial time and effort to, compliance with public company reporting and other requirements.

As a public company, and particularly if and after we cease to be an "emerging growth company" or a "smaller reporting company," we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the rules and regulations of the SEC and NASDAQ impose numerous requirements on public companies, including requirements relating to our corporate governance practices, with which we will need to comply. Further, we are required to, among other things, file annual, quarterly and current reports with respect to our business and operating results. Our management and other personnel will need to devote substantial time to gaining expertise regarding operations as a public company and compliance with applicable laws and regulations, and our efforts and initiatives to comply with those requirements could be expensive.

Prior Kura was not subject to requirements to establish, and did not establish, internal control over financial reporting and disclosure controls and procedures prior to the Merger. Our management team and board of directors will need to devote significant efforts to maintaining adequate and effective disclosure controls and procedures and internal control over financial reporting in order to comply with applicable regulations, which may include hiring additional legal, financial reporting and other finance and accounting staff and engaging consultants to assist in designing and implementing such procedures. Additionally, any of our efforts to improve our internal controls and design, implement and maintain an adequate system of disclosure controls may not be successful and will require that we expend significant cash and other resources.

If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, our ability to operate our business and investors' views of us.

We are required to comply with certain aspects of the Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley Act. Section 404 of the Sarbanes-Oxley Act requires public companies to conduct an annual review and evaluation of their internal controls and attestations of the effectiveness of internal controls by independent auditors. Ensuring that we have adequate internal financial and accounting controls and procedures in place so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that will need to be evaluated frequently. Our failure to maintain the effectiveness of our internal controls in accordance with the requirements of the Sarbanes-Oxley Act could have a material adverse effect on our business. We could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on the price of our common stock. In addition, if our efforts to comply with new or changed laws, regulations, and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We are an emerging growth company and a smaller reporting company, which will allow us to take advantage of certain reduced disclosure obligations as a public reporting company that may make our common stock less attractive to investors.

We are an "emerging growth company" under the JOBS Act and a "smaller reporting company" as defined in applicable rules under the Exchange Act. As an emerging growth company and a smaller reporting company, we are eligible to take advantage of certain extended accounting standards and exemptions from various reporting requirements that are not available to public reporting companies that do not qualify for those classifications. For instance, we are exempt from 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 financial statements, commonly known as an "auditor discussion and analysis"; we are not required to hold a nonbinding advisory stockholder

vote on executive compensation or any golden parachute payments not previously approved by stockholders; we are not required to comply with the requirement of auditor attestation of management's assessment of internal control over financial reporting, which is required for some other public reporting companies by Section 404 of the Sarbanes-Oxley Act; we are eligible for reduced disclosure obligations regarding executive compensation in our periodic and annual reports; and we are eligible for reduced financial statement disclosure in any registration statements under the Securities Act or reports under the Exchange Act that we may file. For as long as we continue to be an emerging growth company and/or a smaller reporting company, which we anticipate will be for the foreseeable future, we expect that we will take advantage of the reduced disclosure obligations available to us as a result of those respective classifications. As a result, our publicly available disclosure may not be as robust or comprehensive as that of other public reporting companies that do not qualify for those classifications.

Management and our board of directors beneficially own a significant amount of our outstanding equity securities and will be able to exert substantial control over us.

Our executive officers and directors beneficially own a significant percentage of our outstanding equity securities. Accordingly, if they act as a group, our executive officers and directors will be able to significantly influence all business decisions, including with respect to such matters as amendments to our charter, other fundamental corporate transactions such as mergers, asset sales and the sale of us, and otherwise will be able to significantly influence our business and affairs.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, outstanding stock options or otherwise, could result in dilution to the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors in a prior transaction may be materially diluted by subsequent sales. Additionally, any such sales may result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of our common stock. Further, any future sales of our common stock by us or resales of our common stock by our existing stockholders could cause the market price of our common stock to decline.

Pursuant to our Amended and Restated 2014 Equity Incentive Plan, or 2014 Plan, we are authorized to grant equity awards consisting of shares of our common stock to our employees, directors and consultants. As of December 31, 2015, we had 478,272 shares of common stock reserved for future issuance under our 2014 Plan and options to purchase up to an aggregate of 574,312 shares of common stock outstanding. The number of shares available for future grant under our 2014 Plan will automatically increase on January 1 of each year by 4% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, subject to the ability of our board of directors to take action to reduce the size of the increase in any given year. On January 1, 2016, the initial automatic increase pursuant to the 2014 Plan occurred, resulting in 854,822 additional shares available for future grant under the 2014 Plan. In addition, we may grant or provide for the grant of rights to purchase shares of our common stock pursuant to our 2015 Employee Stock Purchase Plan, or ESPP. As of December 31, 2015, we had 25,000 shares of common stock reserved for future issuance under our ESPP. The number of shares of our common stock reserved for issuance under the ESPP will automatically increase on January 1 of each calendar year by the lesser of 1% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year and 2,000,000 shares, subject to the ability of our board of directors to take action to reduce the size of the increase in any given year. On January 1, 2016, the initial automatic increase pursuant to the ESPP occurred, resulting in 213,705 additional shares available for future grant under the ESPP. Any future grants of options, warrants or other securities exercisable or convertible into our common stock, or the exercise or conversion of such shares, and any sales of such shares in the market, could have an adverse effect on the market price of our common stock.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could limit the market price of our common stock and may prevent or frustrate attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- a prohibition on stockholder action through written consent, which requires that all stockholder actions be taken at a meeting of our stockholders;
- a requirement that special meetings of stockholders be called only by the chairman of the board of directors, the chief executive officer, or by a majority of the total number of authorized directors;
- advance notice requirements for stockholder proposals and nominations for election to our board of directors;
- a requirement that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than 66 ⅔% of all outstanding shares of our voting stock then entitled to vote in the election of directors;
- a requirement of approval of not less than 66 ⅔% of all outstanding shares of our voting stock to amend any bylaws by stockholder action or to amend specific provisions of our certificate of incorporation; and
- the authority of the board of directors to issue preferred stock on terms determined by the board of directors without stockholder approval and which preferred stock may include rights superior to the rights of the holders of common stock.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These anti-takeover provisions and other provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer or proxy contest involving our company. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing or cause us to take other corporate actions you desire. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

We do not intend to pay cash dividends on our capital stock in the foreseeable future.

We have never declared or paid any dividends on our common stock and do not anticipate paying any dividends in the foreseeable future. Any future payment of cash dividends in the future would depend on our financial condition, contractual restrictions, solvency tests imposed by applicable corporate laws, results of operations, anticipated cash requirements and other factors and will be at the discretion of our board of directors. Our stockholders should not expect that we will ever pay cash or other dividends on our outstanding capital stock.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We occupy approximately 1,560 rentable square feet of office space in La Jolla, California under a sublease that expires in August 2016. We plan to extend the term of our sublease. We also occupy approximately 3,766 square feet of office space in Cambridge, Massachusetts under a lease that expires in August 2020. We believe that our facilities are sufficient to meet our current needs and that suitable additional space will be available as and when needed.

Item 3. Legal Proceedings.

We are not currently a party to, nor is our property the subject of, any material legal proceedings.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

Market Information

From September 16, 2015 through November 4, 2015, our common stock was quoted on the OTCQB under the symbol "KURO." Since November 5, 2015, our common stock has been listed on the NASDAQ Global Select Market under the symbol "KURA" and ceased being quoted on the OTCQB. The high and low bid quotations per share of our common stock as reported by the OTCQB and the high and low sales prices per share of our common stock as reported by NASDAQ for the applicable periods when our common stock was quoted on the OTCQB or listed on the NASDAQ Global Select Market, as applicable, since our common stock commenced public trading are set forth below:

	High	Low
Year Ended December 31, 2015*		
September 16, 2015 – September 30, 2015	$ 15.00	$ 14.00
October 1, 2015 – December 31, 2015	$ 25.00	$ 6.72

*There was no market for our common stock prior to September 16, 2015.

Holders of Record

As of March 11, 2016, there were approximately 344 holders of record of our common stock, which does not include beneficial owners of our common stock whose shares are held in the name of various dealers, clearing agencies, banks, brokers, and other fiduciaries.

Dividend Policy

We have never paid cash dividends on any of our capital stock and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. We do not intend to pay cash dividends to holders of our common stock in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors.

Securities Authorized for Issuance Under Equity Compensation Plans

Information about securities authorized for issuance under our equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report.

Use of Proceeds

On November 4, 2015, the SEC declared effective the registration statement on Form S-1 (File No. 333-207534) for our public offering of our common stock. Pursuant to the registration statement, we registered the offer and sale of up to $69.0 million of shares of our common stock. On November 10, 2015, we sold 6,250,000 shares of our common stock at a public offering price of $8.00 per share and on November 13, 2015, we sold 633,467 shares of our common stock at a public offering price of $8.00 per share pursuant to the partial exercise of the underwriters' option to purchase additional shares for an aggregate gross offering price of approximately $55.1 million. The offering has terminated and consequently we may not sell under that registration statement the remaining approximately $13.9 million of shares of common stock. Citigroup Global Markets Inc. and Leerink Partners LLC acted as joint book-running managers for the offering and JMP Securities LLC and Oppenheimer & Co. Inc. acted as co-lead managers for the offering. Net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $50.3 million. None of the underwriting discounts and commissions or other offering expenses were incurred or paid to our directors or their associates or to persons owning 10 percent or more of our common stock or to any of our affiliates.

We currently expect to use the net proceeds from the public offering (i) to fund the completion of our (a) two ongoing clinical trials and the initiation of a third Phase 2 for our lead product candidate, tipifarnib; (b) ongoing ERK inhibitor program; and (c) companion diagnostic program for tipifarnib, (ii) to fund research for other product candidates and (iii) for working capital and other general corporate purposes. As of December 31, 2015, we have used approximately $2.7 million of the net proceeds from the public offering. Pending their use, we have invested the net proceeds from the public offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or guaranteed obligations of the U.S. government.

Item 6. Selected Financial Data.

Not required for smaller reporting companies.

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

The following discussion of the financial condition and results of operations of Kura Oncology, Inc. and Prior Kura should be read in conjunction with the financial statements and the notes to those statements appearing in this Annual Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks, assumptions and uncertainties. Important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis include, but are not limited to, those set forth in "Item 1A. Risk Factors" in this Annual Report. All forward-looking statements included in this Annual Report are based on information available to us as of the time we file this Annual Report and, except as required by law, we undertake no obligation to update publicly or revise any forward-looking statements.

Overview

We are a clinical stage biopharmaceutical company discovering and developing personalized therapeutics for the treatment of solid tumors and blood cancers. We focus on the development of small molecule product candidates that target cell signaling pathways that are important to driving the progression of certain cancers. We aim to employ molecular diagnostics to identify patients with cancers who are likely to benefit from our targeted product candidates.

Advancements in cancer genetics and new molecular diagnostic tools are helping define why some patients respond to a particular therapy while other patients receive little to no clinical benefit. This new era in cancer drug discovery and development offers the potential for innovative treatments that are safer and more effective for patients with particular cancers. We aim to improve patient outcomes and contribute to the reduction in healthcare costs by matching targeted therapeutics to the patients who will derive the most benefit. We are developing drugs designed to inhibit the mutated or abnormally functioning cellular pathways that drive cancer growth and intend to pair them with molecular diagnostics to identify those patients with tumors most likely to respond to treatment.

We are developing our lead product candidate, tipifarnib, a farnesyl transferase inhibitor, in both solid tumors and blood cancers based on previously generated clinical data, preclinical data as well as our identification of potential molecular biomarkers. We in-licensed tipifarnib from Janssen, a foreign entity headquartered in Belgium and an affiliate of Johnson & Johnson, in December 2014. We initiated a Phase 2 clinical trial of tipifarnib in patients who have solid tumors with HRAS mutations in May 2015, and a Phase 2 clinical trial in patients with PTCL in September 2015. We plan to initiate a Phase 2 clinical trial in patients with lower risk MDS in the second quarter of 2016. Tipifarnib is also currently being evaluated in an investigator sponsored Phase 2 clinical trial in patients with advanced, previously treated urothelial carcinomas that carry HRAS mutations.

Our pipeline also includes two preclinical programs. We are advancing KO-947, a small molecule inhibitor of ERK as a potential treatment for patients with tumors that have mutations in or other dysregulation of the MAPK signaling pathway, including pancreatic cancer, colorectal cancer, NSCLC and melanoma. We anticipate submitting an IND for KO-947 to the FDA in the second quarter of 2016 and commencing a Phase 1 clinical trial in the second half of 2016. We are also developing orally available, small molecule inhibitors of the menin-MLL fusion protein interaction, which are currently in lead optimization as a potential treatment for patients with acute leukemias involving translocations or partial tandem duplications of the MLL gene. Our goal is to nominate a development candidate for our menin-MLL program in the second half of 2016.

Our accumulated deficit was $26.3 million as of December 31, 2015. We expect to continue to incur significant expenses and increasing operating losses for at least the next several years as we continue the clinical development of, and seek regulatory approval for, our product candidates. Our net losses may fluctuate significantly from quarter to quarter and year to year. We will need to raise additional capital for the further development of our existing product candidates and we may also need to raise additional funds sooner than expected to pursue other development activities related to our other pipeline programs. As of December 31, 2015, we had cash, cash equivalents and short-term investments of $85.7 million. We may seek to obtain additional financing in the future through the issuance of our common stock, through other equity or debt financings or through collaborations or partnerships with other companies. We may not be able to raise additional capital on terms acceptable to us, or at all, and any failure to raise capital as and when needed could compromise our ability to execute on our business plan.

Recent Developments

Private Placement

Immediately prior to the Merger, on March 6, 2015, Prior Kura sold to accredited investors 9,485,566 shares of its common stock at a price of $6.32 per share for net proceeds of approximately $55.8 million, which included approximately $7.5 million in principal and $0.1 million in accrued interest from the conversion of the then convertible promissory notes. The share and per share numbers have been retrospectively adjusted to reflect the one for 0.5 shares of common stock exchanged in the Merger.

Reverse Merger

On March 6, 2015, Zeta, Merger Sub and Prior Kura completed the Merger. At the effective time of the Merger, or the Effective Time, each share of Prior Kura common stock that was issued and outstanding immediately prior to the Effective Time was automatically exchanged for 0.5 shares of our common stock. We issued an aggregate of 14,508,177 shares of our common stock upon such exchange of the outstanding shares of Prior Kura. In addition, at the Effective Time, we assumed Prior Kura's 2014 Equity Incentive Plan that was in existence immediately prior to the Effective Time and concurrently approved the amendment and restatement of the Prior Kura 2014 Equity Incentive Plan pursuant to our 2014 Plan, which became effective in April 2015. As of the Effective Time, there were no outstanding options to purchase shares of Prior Kura common stock under the Prior Kura 2014 Equity Incentive Plan.

Immediately following the Effective Time, pursuant to the terms of the Redemption Agreement dated March 6, 2015, by and among Zeta and its pre-Merger stockholders, we completed the closing of a redemption of 5,000,000 shares of Zeta's common stock from its then-current stockholders in consideration of $70,000, plus $30,000 in professional costs related to the transaction. The 5,000,000 shares constituted all of the issued and outstanding shares of its capital stock, on a fully-diluted basis, immediately prior to the Merger.

The Merger was accounted for as a reverse merger and a capital transaction. Prior Kura is the acquirer for accounting purposes and Zeta is the acquired company. Consequently, the assets and liabilities and the operations that are reflected in the historical financial statements prior to the Merger are those of Prior Kura and are recorded at Prior Kura's historical cost basis.

Public Offering

In November 2015, we completed a public offering in which we sold an aggregate of 6,883,467 shares of common stock at a price of $8.00 per share. The net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $50.3 million.

Financial Operations Overview

Research and Development Expenses

We focus on the research and development of our product programs. Our research and development expenses consist of salaries, benefits and other personnel costs, preclinical and clinical trial costs, manufacturing costs for non-commercial products and research and development facilities costs. All such costs are charged to research and development expense as incurred when these expenditures have no alternative future uses. Payments that we make in connection with in-licensed technology for a particular research and development project that have no alternative future uses (in other research and development projects or otherwise) and therefore, no separate economic values, are expensed as research and development costs at the time such costs are incurred. As of December 31, 2015, we have no in-licensed technologies that have alternative future uses in research and development projects or otherwise.

As of December 31, 2015, we had incurred an aggregate of approximately $20.4 million in research and development expenses related to the in-licensing and development of our product candidates and pipeline programs. We cannot determine with certainty the timing of initiation, the duration or the completion costs of current or future preclinical studies and clinical trials of our product candidates. At this time, due to the inherently unpredictable nature of preclinical and clinical development, we are unable to estimate with any certainty the costs we will incur and the timelines we will require in the continued development of our product candidates and our other pipeline programs. Clinical and preclinical development timelines, the probability of success and development costs can differ materially from expectations. Our future research and development expenses will depend on the preclinical and clinical success of each product candidate that we develop, as well as ongoing assessments of the commercial potential of such product candidates. In addition, we cannot forecast which product candidates may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Completion of clinical trials may take several years or more, and the length of time generally varies according to the type, complexity, novelty and intended use of a product candidate. The cost of clinical trials may vary significantly over the life of a project as a result of differences arising during clinical development, including, among others:

- per patient clinical trial costs;
- the number of clinical trials required for approval;
- the number of sites included in the clinical trials;
- the length of time required to enroll suitable patients;
- the number of doses that patients receive;
- the number of patients that participate in the clinical trials;
- the drop-out or discontinuation rates of patients;
- the duration of patient follow-up;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the number and complexity of analyses and tests performed during the clinical trial;
- the phase of development of the product candidate; and
- the efficacy and safety profile of the product candidate.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, benefits and other personnel costs for employees in executive, finance, business development and support functions. Other significant general and administrative expenses include the costs associated with obtaining and maintaining our patent portfolio, professional fees for accounting, auditing, consulting and legal services, corporate expenses, travel and allocated facilities.

Other Income (Expense)

Other income (expense) consists primarily of management fee income, interest income and non-cash interest expense. Management fee income is earned in accordance with the management services agreement with our affiliated company Araxes. Interest expense consists of interest accrued on convertible notes.

Results of Operations

Prior Kura (the accounting acquirer) was incorporated on August 22, 2014; therefore, there were minimal operations for the period from August 22, 2014 (Inception) to December 31, 2014.

Comparison of Fiscal Year Ended December 31, 2015 and Period from August 22, 2014 (Inception) to December 31, 2014

The following table sets forth our results of operations for the year ended December 31, 2015 and the period from August 22, 2015 (Inception) to December 31, 2014:

	Year Ended December 31, 2015	Period From August 22, 2014 (Inception) to December 31, 2014
	(In thousands)	
Research and development expenses	$ 17,777	$ 2,652
General and administrative expenses	6,088	1,282
Other income, net	1,240	263

Research and Development Expenses. Research and development expenses were $17.8 million and $2.7 million for the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to December 31, 2014, respectively. Research and development expenses for the year ended December 31, 2015 primarily comprised of $8.4 million in outsourced research contracts, $3.2 million in personnel costs, $2.1 million in clinical development related expenses, $1.9 million in share-based compensation expense and $0.9 million in sponsored research expense. Research and development expenses for the period from August 22, 2014 (Inception) to December 31, 2014 primarily comprised of $1.8 million in license fees related to the acquisition of in-process research and development, $0.4 million in personnel costs and $0.2 million in share-based compensation expense. We expect to incur substantial research and development expenses in future periods as we continue clinical development activities for our tipifarnib product candidate, plan for the IND submission for KO-947 and further research and development of our other programs.

General and Administrative Expenses. General and administrative expenses were $6.1 million and $1.3 million for the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to December 31, 2014, respectively. General and administrative expenses for the year ended December 31, 2015 primarily comprised of $2.8 million in personnel costs, $1.8 million in legal and other professional fees, $0.7 million in corporate insurance and expenses and $0.3 million in share-based compensation expense. General and administrative expenses for the period from August 22, 2014 (Inception) to December 31, 2014 primarily comprised of $0.6 million in legal and other professional fees and $0.3 million in personnel costs. We expect that our general and administrative expenses will increase substantially in future periods as we expand our operating activities associated with being a public company.

Other income, net. Other income, net is primarily comprised of related party management fee income of $1.2 million and $0.3 million for the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to December 31, 2014, respectively. Under a management services agreement with our affiliate, Araxes, we receive a fixed monthly fee of $100,000 for management services. The initial term of the agreement expired on December 31, 2015 but automatically renews, pursuant to its terms, for additional consecutive one-year periods. The agreement may be terminated by either party with a notice of at least 30 days prior to the expiration of the then-current renewal term.

Liquidity and Capital Resources

Since our inception, we have funded our operations primarily through sales of our common stock and convertible notes. We have devoted our resources to funding research and development programs, including discovery research, preclinical and clinical development activities. We have incurred operating losses since inception and negative cash flows from operating activities. As of December 31, 2015, we had an accumulated deficit of $26.3 million. We expect to continue to incur operating losses for the foreseeable future as we continue the development and potential commercialization of our product candidates.

As of December 31, 2015, we had cash, cash equivalents and short-term investments of $85.7 million. While we believe that our existing cash resources will be sufficient to fund our cash requirements for the next twelve months, we will require significant additional financing in the future to continue to fund our operations. We may seek to obtain additional financing in the future through equity or debt financings or through collaborations or partnerships with other companies. If we are unable to obtain additional financing on commercially reasonable terms, our business, financial condition and results of operations will be materially adversely affected.

We expect to continue to incur significant losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory approvals for, our product candidates and begin to commercialize any

approved products. To date, we have not generated any revenues from product sales, and we do not have any approved products. We do not know when, or if, we will generate any revenue from product sales. We do not expect to generate significant revenue from product sales unless and until we obtain regulatory approval of and commercialize one of our current or future product candidates. We are subject to all of the risks incident in the development of new therapeutic products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. We anticipate that we will need substantial additional funding in connection with our continuing operations.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of stock offerings, debt financings, collaborations, strategic partnerships and licensing arrangements. We do not have any committed external source of funds. Additional capital may not be available on reasonable terms, if at all. To the extent that we raise additional capital through the sale of stock or convertible debt securities, 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 common stockholders. Debt financing, if available, may involve agreements that include increased fixed payment obligations and covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends, selling or licensing intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we raise additional funds through collaborations, strategic partnerships or licensing arrangements with third parties, we may have to relinquish valuable rights to our product candidates, including our other technologies, future revenue streams or research programs, or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds when needed, we may be unable to carry out our business plan. As a result we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and commercialize our product candidates even if we would otherwise prefer to develop and commercialize such product candidates ourselves and our business, financial condition and results of operations would be materially adversely affected.

The following table provides a summary of our net cash flow activities for the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to December 31, 2014:

	Year Ended December 31, 2015	Period From August 22, 2014 (Inception) to December 31, 2014
	(In thousands)	
Net cash used in operating activities	$ (17,925)	$ (849)
Net cash used in investing activities	(70,626)	(28)
Net cash provided by financing activities	102,870	2,001

Net cash used in operating activities was $17.9 million and $0.8 million for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, respectively. The increase in net cash used in operating activities was primarily due to a $19.0 million higher net loss for the year ended December 31, 2015 compared to the prior period, partially offset by an increase in share-based compensation expenses of $2.0 million.

Net cash used in investing activities was $70.6 million and $28,000 for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, respectively. The net cash used in investing activities for the year ended December 31, 2015 primarily consisted of purchases of marketable securities.

Net cash provided by financing activities was $102.9 million and $2.0 million for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, respectively. Net cash provided by financing activities for the year ended December 31, 2015 includes an aggregate of approximately $97.9 million in net proceeds from the sale of common stock in our March 2015 private placement and our November 2015 public offering and $5.0 million in proceeds from the issuance of convertible notes. Net cash provided by financing activities for the period from August 22, 2014 (Inception) to December 31, 2014 primarily resulted from net proceeds from the issuance of a convertible promissory note to Araxes.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements (as defined by applicable regulations of the SEC) that are reasonably likely to have a current or future material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Critical Accounting Policies and Management Estimates

The SEC defines critical accounting policies as those that are, in management's view, important to the portrayal of our financial condition and results of operations and demanding of management's judgment. Management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements required estimates and judgments that affect the reported amounts of assets, liabilities, and expenses and the disclosure of contingent assets and liabilities in the financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses and share-based compensation. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to Financial Statements of this Annual Report, we believe the following accounting policies are critical to the judgments and estimates used in the preparation of our financial statements.

Research and Development Expenses

We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. If the actual timing of the performance of services or the level of effort varies from the estimate, we will adjust the accrual accordingly. Nonrefundable advance payments for goods and services, including fees for process development or manufacturing and distribution of clinical supplies that will be used in future research and development activities, are deferred and recognized as expense in the period that the related goods are consumed or services are performed. Payments that we make in connection with in-licensed technology for a particular research and development project that have no alternative future uses (in other research and development projects or otherwise) and therefore no separate economic values are expensed as research and development costs at the time such costs are incurred.

Clinical Trial Costs and Accruals

We accrue clinical trial costs based on work performed. In determining the amount to accrue, we rely on estimates of total costs incurred based on enrollment, the completion of clinical trials and other events. We follow this method because we believe reasonably dependable estimates of the costs applicable to various stages of a clinical trial can be made. However, the actual costs and timing of clinical trials are highly uncertain, subject to risks and may change depending on a number of factors. Differences between the actual clinical trial costs and the estimated clinical trial costs that we have accrued in any prior period are recognized in the subsequent period in which the actual costs become known. Historically, our estimated accrued expenses have approximated actual expense incurred; however, material differences could occur in the future.

Share-Based Payments

We account for share-based compensation expense related to stock options granted to employees, members of our board of directors, and non-employee consultants by estimating the fair value of each stock option on the date of grant using the Black-Scholes options-pricing model. The Black-Scholes model requires the use of subjective assumptions, including fair value of the underlying common stock, volatility, expected term, risk free interest rate, and the expected dividend yield. The fair value of awards expected to vest are recognized and amortized on a straight line basis over the requisite service period of the award less estimated forfeitures. In accordance with authoritative guidance, the fair value of non-employee share-based awards is remeasured as the awards vest, and the resulting change in value, if any, is recognized as expense during the period the related services are rendered.

Recently Adopted Accounting Pronouncements

See "Note 3-Recent Accounting Pronouncements" in the Notes to Financial Statements of this Annual Report.

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

Not required for smaller reporting companies.

Item 8. Financial Statements and Supplementary Data.

The financial statements required pursuant to this item are included in Item 15 of this Annual Report and are presented beginning on page F-1.

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

None.

Item 9A. Controls and Procedures.

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports required by the Exchange Act is recorded, processed, summarized and reported within the timelines specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by SEC Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Annual Report. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2015.

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

This Annual Report does not include an attestation report of our independent registered public accounting firm due to a transition period established by the JOBS Act for emerging growth companies.

Change in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with management's evaluation of such internal control that occurred during the quarter ended December 31, 2015 that have materially affected, or are reasonably likely to material affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item and not set forth below will be set forth in the sections headed “Election of Directors” and “Executive Officers” in our definitive proxy statement for our 2016 Annual Meeting of Stockholders, or Proxy Statement, to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2015, and is incorporated herein by reference.

We have adopted a written code of ethics for directors, officers (including our principal executive officer and our principal financial and accounting officer) and employees, known as the Code of Business Conduct and Ethics. The Code of Business Conduct and Ethics is available on our website at *www.kuraoncology.com* under the Corporate Governance section of our Investors page. We will promptly disclose on our website (i) the nature of any amendment to the Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the Code of Business Conduct and Ethics that is granted to one of these specified individuals that is required to be disclosed pursuant to SEC rules and regulations, the name of such person who is granted the waiver and the date of the waiver.

Item 11. Executive Compensation.

The information required by this item will be set forth in the sections headed “Executive Compensation” and “Non-Employee Director Compensation” in our 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 will be set forth in the section headed “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement and is incorporated herein by reference.

The information required by Item 201(d) of Regulation S-K will be set forth in the section headed “Executive Compensation” in our Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the sections headed “Certain Relationships and Related Party Transactions” and “Information Regarding the Board of Directors and Corporate Governance” in our Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information required by this item will be set forth in the section headed “Ratification of Selection of Independent Registered Public Accounting Firm” in our Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

1. *Financial Statements*. We have filed the following documents as part of this Annual Report:

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Balance Sheets	F-3
Statements of Operations and Comprehensive Loss	F-4
Statements of Stockholders' Equity (Deficit)	F-5
Statements of Cash Flows	F-6
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2. *Financial Statement Schedules.*

There are no financial statement schedules provided because the information called for is either not required or is shown either in the financial statements or the notes thereto.

3. *Exhibits*

A list of exhibits is set forth on the Exhibit Index immediately following the signature page of this Annual Report and is incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized**.**

Kura Oncology, Inc.

Date: March 17, 2016

By: /s/ Troy E. Wilson, Ph.D., J.D.
Troy E. Wilson, Ph.D., J.D.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Troy E. Wilson, Ph.D., J.D. and Heidi Henson, and each of them, as his or her true and lawful attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Name	Title	Date
/s/ Troy E. Wilson, Ph.D., J.D. **Troy E. Wilson, Ph.D., J.D.**	President, Chief Executive Officer and Chairman of the Board of Directors *(Principal Executive Officer)*	March 17, 2016
/s/ Heidi Henson **Heidi Henson**	Chief Financial Officer and Secretary *(Principal Financial Officer and Principal Accounting Officer)*	March 17, 2016
/s/ Faheem Hasnain **Faheem Hasnain**	Director	March 17, 2016
/s/ Robert E. Hoffman **Robert E. Hoffman**	Director	March 17, 2016
/s/ Thomas Malley **Thomas Malley**	Director	March 17, 2016

KURA ONCOLOGY, INC.

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Balance Sheets as of December 31, 2015 and 2014 F-3

Statements of Operations and Comprehensive Loss for the Year Ended December 31, 2015 and the Period from August 22, 2014 (Inception) to December 31, 2014 F-4

Statements of Stockholders' Equity (Deficit) for the Year Ended December 31, 2015 and the Period from August 22, 2014 (Inception) to December 31, 2014 F-5

Statements of Cash Flows for the Year Ended December 31, 2015 and the Period from August 22, 2014 (Inception) to December 31, 2014 F-6

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Kura Oncology, Inc.

We have audited the accompanying balance sheets of Kura Oncology, Inc. as of December 31, 2015 and 2014, and the related statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to 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 financial position of Kura Oncology, Inc. at December 31, 2015 and 2014, and the results of its operations and its cash flows for the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to December 31, 2014, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

San Diego, California
March 17, 2016

KURA ONCOLOGY, INC.
BALANCE SHEETS
(In thousands, except par value data)

	December 31,	
	2015	**2014**
Assets		
Current assets:		
Cash and cash equivalents	$ 15,443	$ 1,124
Short-term investments	70,303	—
Accounts receivable, related party	430	30
Prepaid expenses and other current assets	693	42
Total current assets	86,869	1,196
Property and equipment, net	71	27
Other long-term assets	314	150
Other long-term assets, related party	5	5
Total assets	$ 87,259	$ 1,378
Liabilities and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable and accrued expenses	$ 4,118	$ 846
Accounts payable and accrued expenses, related party	937	134
Convertible notes payable, related party, current	—	2,036
Total current liabilities	5,055	3,016
Convertible notes payable, related party	—	493
Other long-term liabilities	101	1,295
Other long-term liabilities, related party	—	7
Total liabilities	5,156	4,811
Commitments and contingencies (Note 10)		
Stockholders' equity (deficit):		
Preferred stock, $0.0001 par value; 10,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.0001 par value; 200,000 and 100,000 shares authorized; 21,371 and 4,944 shares issued; and 18,138 and 411 shares outstanding, excluding 3,233 and 4,533 shares subject to repurchase as of December 31, 2015 and December 31, 2014, respectively	2	—
Additional paid-in capital	108,484	238
Accumulated comprehensive loss	(87)	—
Accumulated deficit	(26,296)	(3,671)
Total stockholders' equity (deficit)	82,103	(3,433)
Total liabilities and stockholders' equity (deficit)	$ 87,259	$ 1,378

See accompanying notes to financial statements.

KURA ONCOLOGY, INC.
STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share data)

	Year Ended December 31, 2015	Period From August 22, 2014 (Inception) to December 31, 2014
Operating Expenses:		
Research and development	$ 13,905	$ 2,028
Research and development, related party	3,872	624
General and administrative	6,019	1,262
General and administrative, related party	69	20
Total operating expenses	23,865	3,934
Other Income (Expense):		
Management fee income, related party	1,200	300
Interest income	128	—
Interest expense	(42)	(37)
Interest expense, related party	(46)	—
Total other income	1,240	263
Net loss	$ (22,625)	$ (3,671)
Net loss per share, basic and diluted	$ (2.28)	$ (25.98)
Weighted-average number of shares used in computing net loss per share, basic and diluted	9,933	141
Comprehensive Loss:		
Net loss	$ (22,625)	$ (3,671)
Unrealized loss on marketable securities	(87)	—
Comprehensive loss	$ (22,712)	$ (3,671)

See accompanying notes to financial statements.

KURA ONCOLOGY, INC.
STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)

	Common Stock		Additional Paid-In	Unrealized	Accumulated	Total Stockholders'
	Shares	Par Value	Capital	Loss	Deficit	Equity (Deficit)
Balance at August 22, 2014 (Inception)	—	$ —	$ —	$ —	$ —	$ —
Share-based compensation expense	—	—	237	—	—	237
Restricted stock awards vested	411	—	1	—	—	1
Net loss	—	—	—	—	(3,671)	(3,671)
Balance at December 31, 2014	411	—	238	—	(3,671)	(3,433)
Issuance of common stock, net of offering costs	15,164	2	97,868	—	—	97,870
Issuance of common stock for license fee	79	—	500	—	—	500
Conversion of notes payable and accrued interest	1,205	—	7,615	—	—	7,615
Restricted stock awards vested	1,279	—	4	—	—	4
Share-based compensation expense	—	—	2,259	—	—	2,259
Unrealized loss on marketable securities	—	—	—	(87)	—	(87)
Net loss	—	—	—	—	(22,625)	(22,625)
Balance at December 31, 2015	18,138	$ 2	$ 108,484	$ (87)	$ (26,296)	$ 82,103

See accompanying notes to financial statements

KURA ONCOLOGY, INC.
STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31, 2015	Period From August 22, 2014 (Inception) to December 31, 2014
Operating Activities		
Net loss	$ (22,625)	$ (3,671)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation expense	2,259	237
Non-cash license fee expense	500	500
Change in value of derivative liability	268	—
Non-cash accrued interest expense	37	—
Non-cash accrued interest expense, related party	42	—
Depreciation expense	20	1
Amortization of discount on marketable securities	171	—
Changes in operating assets and liabilities:		
Accounts receivable, related party	(400)	(30)
Prepaid expenses and other current assets	(650)	(42)
Other long-term assets	(164)	(150)
Other long-term assets, related party	—	(5)
Accounts payable and accrued expenses	2,812	833
Accounts payable and accrued expenses, related party	803	135
Accrued interest, related party	—	36
Other long-term liabilities	(998)	1,307
Net cash used in operating activities	(17,925)	(849)
Investing Activities		
Purchases of marketable securities	(76,562)	—
Maturities of marketable securities	6,000	—
Purchases of property and equipment	(64)	(28)
Net cash used in investing activities	(70,626)	(28)
Financing Activities		
Proceeds from issuance of common stock, net	97,870	—
Proceeds from issuance of convertible notes	4,290	—
Proceeds from issuance of convertible notes, related party	710	2,000
Proceeds from issuance of restricted stock awards	—	1
Net cash provided by financing activities	102,870	2,001
Net increase in cash and cash equivalents	14,319	1,124
Cash and cash equivalents at beginning of period	1,124	—
Cash and cash equivalents at end of period	$ 15,443	$ 1,124
Supplemental disclosure of non-cash financing activities:		
Conversion of convertible notes and related accrued interest to common stock	$ 4,327	$ —
Conversion of convertible notes and related accrued interest to common stock, related party	$ 3,288	$ —

See accompanying notes to financial statements.

1. Organization and Basis of Presentation

Kura Oncology, Inc., is a clinical stage biopharmaceutical company discovering and developing personalized therapeutics for the treatment of solid tumors and blood cancers. We focus on the development of small molecule product candidates that target cell signaling pathways that are important to driving the progression of certain cancers. We aim to employ molecular diagnostics to identify patients with cancers who are likely to benefit from our targeted product candidates.

References in these Notes to Financial Statements to the "Company" or "we", "our" or "us", refer to Kura Oncology, Inc., or Prior Kura, a private Delaware corporation incorporated in the State of Delaware in August 2014, for the periods prior to the Merger (as defined below) which took place on March 6, 2015, and Kura Oncology, Inc., a Delaware corporation incorporated in November 2007 and formerly known as Zeta Acquisition Corp. III, or Zeta, a public shell company, for the periods following the Merger.

Effective March 6, 2015, or the Effective Time, we completed a reverse merger, or the Merger, with a wholly owned subsidiary of Zeta, leaving Prior Kura as the surviving entity. On March 31, 2015, the surviving entity merged with and into us. Zeta was formed in November 2007 with no specific business plan or purpose. As a result of the Merger and related transactions, Zeta changed its name to "Kura Oncology, Inc." and began operating Prior Kura's business.

Pursuant to the terms of an Agreement and Plan of Merger dated March 6, 2015, by and among Zeta, Kura Operations, Inc. and Prior Kura, at the Effective Time, each share of Prior Kura common stock outstanding immediately prior to the Effective Time was exchanged for one-half (0.5) of a share of our common stock. We issued an aggregate of 14,508,177 shares of our common stock upon such exchange of the Prior Kura common stock outstanding. In addition, at the Effective Time, we assumed Prior Kura's 2014 Equity Incentive Plan that was in existence immediately prior to the Effective Time and concurrently approved the amendment and restatement of the Prior Kura 2014 Equity Incentive Plan, pursuant to our Amended and Restated 2014 Equity Incentive Plan, or 2014 Plan, which became effective in April 2015. Refer to Note 12, Equity Incentive Plan for detailed discussion of the 2014 Plan.

Immediately following the Effective Time, pursuant to the terms of a Redemption Agreement dated March 6, 2015, by and among Zeta and its pre-Merger stockholders, we completed the closing of a redemption of 5,000,000 shares of our common stock, or the Redemption, from our pre-Merger stockholders for consideration of $70,000, plus $30,000 in professional fees related to the transaction. The 5,000,000 shares constituted all of the issued and outstanding shares of Zeta's capital stock, on a fully-diluted basis, immediately prior to the Merger. Upon completion of the Merger and the Redemption, Prior Kura's stockholders held 100% of the outstanding shares of our capital stock.

The Merger was accounted for as a reverse merger and a capital transaction. Prior Kura is the acquirer for accounting purposes and Zeta is the acquired company. Consequently, the assets and liabilities and the operations that are reflected in the historical financial statements prior to the Merger are those of Prior Kura and are recorded at Prior Kura's historical cost basis. Prior Kura was incorporated in August 2014; therefore, there were no operations in the periods prior to August 2014. The financial statements after completion of the Merger include our assets, liabilities and operations. The historical equity accounts and awards of Prior Kura, including par value per share, share and per share numbers, have been retrospectively adjusted to reflect the one for 0.5 shares common stock exchange, the par value of $0.0001 and the number of shares received in the Merger.

Immediately prior to the Merger, on March 6, 2015, Prior Kura sold to investors 9,485,566 shares of its common stock at a price of $6.32 per share, or Private Placement, for net proceeds of approximately $55.8 million, which included approximately $7.5 million in principal and $115,000 in accrued interest from the conversion of the then outstanding convertible promissory notes.

In November 2015, we completed a public offering in which we sold an aggregate of 6,883,467 shares of common stock at a price of $8.00 per share. Net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $50.3 million.

2. Summary of Significant Accounting Policies

Use of Estimates

Our financial statements are prepared in accordance with accounting principles generally accepted in the United States. The preparation of our financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period.

Reported amounts and note disclosures reflect the overall economic conditions that are most likely to occur and anticipated measures management intends to take. Actual results could differ materially from those estimates. All revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. We operate in a single industry segment which is the discovery and development of personalized therapeutics for the treatment of solid tumors and blood cancers. Our chief operating decision-maker reviews the operating results on an aggregate basis and manages the operations as a single operating segment.

Cash and Cash Equivalents

Cash equivalents consist of highly liquid investments that are readily convertible to cash and that mature within three months or less from the date of purchase. The carrying amounts approximate fair value due to the short maturities of these instruments. Cash and cash equivalents consist primarily of cash in readily available checking and money market accounts.

Short-Term Investments

Short-term investments are marketable securities with maturities greater than three months from date of purchase that are specifically identified to fund current operations. These investments are classified as current assets, even though the stated maturity date may be one year or more beyond the current balance sheet date, which reflects management’s intention to use the proceeds from sales of these securities to fund our operations, as necessary. The cost of short-term investments is adjusted for amortization of premiums or accretion of discounts to maturity, and such amortization or accretion is included in interest income. Dividend and interest income is recognized as interest income on the statements of operations and comprehensive loss when earned. Short-term investments are classified as available-for-sale securities and carried at fair value with unrealized gains and losses recorded in other comprehensive loss and included as a separate component of stockholders' equity (deficit). Realized gains and losses from the sale of available-for-sale securities and declines in value judged to be other than temporary on short-term investments, if any, are determined on a specific identification basis and are reclassified out of comprehensive loss and included in interest income on the statements of operations and comprehensive loss.

Fair Value Measurements

Fair value is defined as the exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable;
- Level 3 - Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

Concentration of Credit Risk

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. We maintain deposits in federally insured financial institutions in excess of federally insured limits. We have established guidelines to limit our exposure to credit risk by placing investments with high credit quality financial institutions, diversifying our investment portfolio and placing investments with maturities that maintain safety and liquidity.

Property and Equipment

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets which is three years for each asset class.

Impairment of Long-Lived Assets

We review our long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. If such circumstances are determined to exist, an estimate of undiscounted future cash flows produced by the long-lived asset, including its eventual residual value, is compared to the carrying value to determine whether impairment exists. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the assets, the assets are written-down to their estimated fair values. While our current and historical operating losses and negative cash flows are indicators of impairment, we believe that future cash flows to be received support the carrying value of our long-lived assets and, accordingly, have not recognized any impairment losses through December 31, 2015.

Research and Development Expenses

Research and development expenses consist of salaries, benefits, and other personnel costs, preclinical and clinical trial costs, manufacturing costs for non-commercial products, and research and development facilities costs. All such costs are charged to research and development expense as incurred when these expenditures have no alternative future uses. Payments that we make in connection with in-licensed technology for a particular research and development project that have no alternative future uses (in other research and development projects or otherwise) and therefore no separate economic values are expensed as research and development costs at the time such costs are incurred. As of December 31, 2015, we have no in-licensed technologies that have alternative future uses in research and development projects or otherwise.

Clinical Trial Costs and Accruals

A significant portion of our clinical trial costs relate to contracts with contract research organizations, or CROs. The financial terms of our CRO contracts may result in payment flows that do not match the periods over which materials or services are provided to us under such contracts. Our objective is to reflect the appropriate clinical trial expenses in our financial statements by matching those expenses with the period in which services and efforts are expended. As part of the process of preparing our financial statements, we rely on cost information provided by our CROs (concerning monthly expenses as well as reimbursement for pass through costs). We are also required to estimate certain of our expenses resulting from our obligations under our CRO contracts. Accordingly, our clinical trial accrual is dependent upon the timely and accurate reporting of CROs and other third-party vendors. If the contracted amounts are modified (for instance, as a result of changes in the clinical trial protocol or scope of work to be performed), we modify our accruals accordingly on a prospective basis. Revisions in the scope of a contract are charged to expense in the period in which the facts that give rise to the revision become reasonably certain. Historically, we have had no material changes in clinical trial expense that had a material impact on our results of operations or financial position.

Patent Costs

We expense all costs as incurred in connection with patent applications, including direct application fees, and the legal and consulting expenses related to making such applications, and such costs are included in general and administrative expenses on the statements of operations and comprehensive loss.

Share-Based Payments

Our share-based awards are measured at fair value on the date of grant based upon the estimated fair value of common stock. The fair value of awards expected to vest are recognized and amortized on a straight-line basis over the requisite service period of the award less estimated forfeitures. The fair value of each stock option is estimated on the date of grant using the Black-Scholes option pricing model that requires the use of subjective assumptions including volatility, expected term, risk-free rate, and the fair value of the underlying common stock.

Awards granted to non-employees are subject to periodic revaluation over their vesting terms. The fair value of non-employee awards is remeasured at each reporting period as the underlying awards vest unless the instruments are fully vested, immediately exercisable and nonforfeitable on the date of grant. We record the expense for stock option grants to non-employees based on the estimated fair value of the stock options using the Black-Scholes option pricing model. Estimated fair value of the restricted stock awards granted to non-employees is recorded on the earlier of the performance commitment date or the date the services required are completed and are remeasured at fair value during the service period. As non-employee restricted stock awards vest, they are remeasured at fair value and expensed based on the intrinsic value method which is measured as the difference between the exercise price paid for the restricted stock award and the fair value of the shares as the right of the repurchase lapses each vesting period.

Income Taxes

Income taxes have been accounted for using the asset and liability method. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates applicable to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance against deferred tax assets is recorded if, based upon the weight of all available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. For uncertain tax positions that meet “a more likely than not” threshold, we recognize the benefit of uncertain tax positions in the financial statements.

Comprehensive Loss

Comprehensive loss is defined as the change in equity during the period from transactions and other events and non-owner sources. For the periods presented, accumulated other comprehensive loss consists solely of unrealized losses on marketable securities.

Net Loss per Share

We calculated basic net loss per common share by dividing the net loss by the weighted-average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is calculated by dividing the net loss by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method. Dilutive common stock equivalents are comprised of unvested restricted stock awards and outstanding stock options under our equity plan. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to the antidilutive effect of the securities. Because of our net loss, unvested stock awards representing an aggregate of 3,232,350 and 4,532,874 shares of common stock and options to purchase an aggregate of 574,312 and zero shares of common stock are excluded from the calculation of diluted net loss per common share as of December 31, 2015 and 2014, respectively, due to the anti-dilutive effect of the securities.

3. Recent Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board, or FASB, issued Accounting Standard Update, or ASU, 2015-17, Balance Sheet Classification of Deferred Taxes, requiring all deferred tax assets and liabilities, and any related valuation allowance, to be classified as noncurrent on the balance sheet. This pronouncement is effective for fiscal years beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. We have adopted this standard prospectively as of December 31, 2015, and no adjustments were made to prior periods.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which amends the existing accounting standards for accounting for leases. The amendments are to increase transparency and comparability among organizations by requiring recognition of lease assets and lease liabilities on the balance sheets and disclosure of key information about leasing arrangements. This pronouncement is effective for fiscal years beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted. The guidance is required to be adopted at the earliest period presented using a modified retrospective approach. We are currently evaluating the impact these amendments will have on our financial statements and whether we will adopt the guidance early.

4. Short-Term Investments

The following table summarizes, by major security type, our short-term investments that are measured at fair value on a recurring basis as of December 31, 2015, in thousands:

		As of December 31, 2015		
	Maturities	Amortized Cost	Unrealized Losses	Fair Value
Corporate debt securities	2 or less	$ 22,758	$ (48)	$ 22,710
Commercial paper	1 or less	18,367	—	18,367
U.S. Treasury securities	2 or less	16,007	(18)	15,989
Government sponsored entities	2 or less	13,258	(21)	13,237
Total short-term investments		$ 70,390	$ (87)	$ 70,303

The available-for-sale investments are classified as current assets, even though the stated maturity date may be one year or more beyond the current balance sheet date, which reflects management's intention to use the proceeds from sales of these securities to fund our operations, as necessary. As of December 31, 2015, $57.6 million of our investments had maturities less than one year and $12.7 million had maturities between one to two years. There were $6.0 million of available-for-sale securities that matured during the year ended December 31, 2015. There were no unrealized gains or realized gains or losses for the year ended December 31, 2015. As of December 31, 2015, $51.9 million of our marketable securities were in gross unrealized loss positions, all of which had been in such position for less than twelve months. We reviewed our marketable securities as of December 31, 2015 and determined that the unrealized losses were not considered to be other-than-temporary based upon (i) the financial strength of the issuing institution and (ii) the fact that all securities have been in an unrealized loss position for less than twelve months. In addition, we do not intend to sell these securities and it is not more likely than not that we will be required to sell these securities before the recovery of their amortized cost basis. As such, we did not recognize any such impairment in our financial statements as of December 31, 2015. As of December 31, 2014, we did not have any cash equivalents or short-term investments.

5. Fair Value Measurements

Investment Securities

As of December 31, 2015, we had cash equivalents and short-term investments measured at fair value on a recurring basis. The carrying amounts of our financial instruments, which include cash equivalents, prepaid expenses, accounts payable, accrued expenses and all related party amounts approximate their fair values as of December 31, 2015, primarily due to their short-term nature. Fair value estimates of these instruments are made at a specific point in time, based on relevant market information. These estimates may be subjective in nature and involve uncertainties and matters of significant judgment and therefore cannot be determined with precision. As of December 31, 2014, we did not have any cash equivalents or short-term investments measured at fair value on a recurring basis.

Available-for-sale marketable securities consist of U.S. Treasury securities, which were measured at fair value using Level 1 inputs, and corporate debt securities, commercial paper and government sponsored entities, which were measured at fair value using Level 2 inputs. We determine the fair value of Level 2 related securities with the aid of valuations provided by third parties using proprietary valuation models and analytical tools. These valuation models and analytical tools use market pricing or prices for similar instruments that are both objective and publicly available, including matrix pricing or reported trades, benchmark yields, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids and/or offers. We validate the fair values of Level 2 financial instruments by comparing these fair values to a third-party pricing source. No transfers between levels have occurred during the periods presented.

The following table summarizes, by major security type, our cash equivalents and short-term investments that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy as of December 31, 2015, in thousands:

	As of December 31, 2015			
	Balance	Level 1	Level 2	Level 3
Cash equivalents:				
Money market funds	$ 12,984	$ 12,984	$ —	$ —
Short-term investments:				
Corporate debt securities	22,710	—	22,710	—
Commercial paper	18,367	—	18,367	—
U.S. Treasury securities	15,989	15,989	—	—
Government sponsored entities	13,237	—	13,237	—
Total short-term investments	70,303	15,989	54,314	—
Total	$ 83,287	$ 28,973	$ 54,314	$ —

Derivative Liability

Our license agreement with The Regents of the University of California San Francisco, or UCSF, which was amended in April 2015, provides for an indexed milestone payment upon the occurrence of a qualified financing and a subsequent initial public offering or a change of control event, or Indexed Milestone Event, as defined in the agreement. The indexed milestone was determined to qualify as an embedded derivative liability requiring an estimate of fair value. Prior to the completion of the Indexed Milestone Event, we estimated the fair value of our derivative liability at the time of issuance and subsequent remeasurement at each reporting date using a probability model that considered the probability of achieving the events that would trigger such liability and the estimated time period the liability would be outstanding.

Upon completion of the qualified financing event in March 2015 and the public offering completed in November 2015, the indexed milestone payment was determined to be $464,000. As of December 31, 2015, the balance of the derivative liability was $232,000. No transfers between levels have occurred during the periods presented. According to the payment terms as defined in the agreement, 50% of the liability was due and paid in December 2015, 30 days after the Indexed Milestone Event, and the remaining 50% will be due in November 2016. As such, the $232,000 derivative liability balance was reclassified to current liabilities and is included in accounts payable and accrued expenses on the balance sheets.

The following table provides a reconciliation of the derivative liability, in thousands:

	Derivative Liability
Balance at August 22, 2014 (Inception)	$ —
Issuance of derivative liability	196
Balance at December 31, 2014	196
Change in fair value(1)	268
Payments	(232)
Balance at December 31, 2015	$ 232

(1) The amount is included in research and development expenses on the statements of operations and comprehensive loss.

6. Property and Equipment, Net

Property and equipment consisted of the following, in thousands:

	December 31,	
	2015	2014
Computer equipment	$ 85	$ 26
Software	7	2
Property and equipment, gross	92	28
Less: accumulated depreciation	(21)	(1)
Property and equipment, net	$ 71	$ 27

Depreciation expense was $20,000 and $1,000 for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, respectively.

7. Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities consisted of the following, in thousands:

	December 31,	
	2015	2014
Accounts payable	$ 902	$ 226
Accrued compensation and benefits	1,282	39
Other accrued expenses	1,934	581
Total accounts payable and accrued expenses	$ 4,118	$ 846

8. Notes Payable

Araxes Convertible Note

In October 2014, we entered into a Note Purchase Agreement and Convertible Promissory Note with an affiliated company Araxes Pharma LLC, or Araxes, under which Araxes provided a $2.0 million loan in the form of a convertible promissory note. In connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 was automatically converted into 326,443 shares of our common stock.

Araxes Asset Purchase Agreement – Convertible Note

As consideration for the patents acquired under the Araxes Asset Purchase Agreement entered into in December 2014, Araxes issued a convertible promissory note equal to the purchase price of the patent rights of $500,000. In connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the note was automatically converted into 80,293 shares of our common stock.

January 2015 Convertible Notes

In January 2015, we entered into a Note Purchase Agreement and Convertible Promissory Note for a $3.0 million loan with various persons and entities named within the agreement, or the January 2015 Note Holders, of which $710,000 were with certain officers and certain officers' related parties. In connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the note was automatically converted into 479,667 shares of our common stock.

JJDC Convertible Note

In accordance with the license agreement with Janssen Pharmaceutica NV, a foreign entity headquartered in Belgium and an affiliate of Johnson & Johnson, Inc., or Janssen, in January 2015 we entered into a Convertible Promissory Note with Janssen's affiliated company, Johnson & Johnson Innovation – JJDC, Inc., for $1.0 million. In connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the note was automatically converted into 159,615 shares of our common stock.

February 2015 Convertible Notes

In February 2015, we entered into a Note Purchase Agreement and Convertible Promissory Note with entities named within the agreement, or the February 2015 Note Holders, under which the February 2015 Note Holders provided a $1.0 million loan in the form of convertible promissory notes. In connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the note was automatically converted into 158,852 shares of our common stock.

9. License Agreements

Janssen License Agreement

In December 2014, we entered into a license agreement with Janssen, under which we received certain intellectual property rights related to tipifarnib in the field of oncology for a non-refundable $1.0 million upfront license fee and payments upon achievement of certain development and sales-based milestones. Tipifarnib is a clinical stage compound and all ongoing development, regulatory and commercial work will be completed fully and at our sole expense. Under the license agreement, Janssen has a first right to negotiate for an exclusive license back from us to develop and commercialize tipifarnib on terms to be negotiated in good faith. Janssen may exercise this right of first negotiation during a 60-day period following delivery of clinical data as specified in the agreement.

The agreement will terminate upon the last-to-expire patent rights or last-to-expire royalty term, or may be terminated by us with 180 days written notice of termination. Either party may terminate the agreement in the event of material breach of the agreement that is not cured within 45 days. Janssen may also terminate the agreement due to our lack of diligence that is not cured within a three-month period.

The upfront license fee was recorded as research and development expense for the period from August 22, 2014 (Inception) to December 31, 2014 and paid in January 2015. Subsequent to such payment, in accordance with the agreement, we entered into a convertible promissory note with Janssen's affiliated company, Johnson & Johnson Innovation—JJDC, Inc. as described further in Note 8.

License Agreement with The University of Michigan

In December 2014, we entered into a license agreement with The Regents of The University of Michigan, or Michigan, under which we received certain license rights for a non-refundable upfront license, annual maintenance fees and payments upon achievement of certain development and sales-based milestones. The licensed asset consists of a number of compounds, which are in the lead discovery/lead optimization phase. All future development, regulatory and commercial work on the asset will be completed fully and at our sole expense. Michigan retains the right to use the asset for non-commercial research, internal and/or educational purposes, with the right to grant the same limited rights to other non-profit research institutions. Furthermore, the agreement stipulates contingent consideration for the issuance of shares equivalent to a set dollar value upon the occurrence of a qualified financing or a change of control event, as defined in the amendment to the agreement, consistent with the terms issued to any future investors or the per share consideration to be received by other shareholders. As a result of the Private Placement, we issued 79,113 shares of our common stock at a fair value of $500,000, which was recognized as research and development expense during the year ended December 31, 2015.

The agreement will terminate upon the last-to-expire patent rights, or may be terminated by us at any time with 90 days written notice of termination or terminated by Michigan upon a bankruptcy by us, payment failure by us that is not cured within 30 days or a material breach of the agreement by us that is not cured within 60 days.

The University of California San Francisco License Agreement

In November 2014, we entered into a license agreement with UCSF, which was amended in April 2015, under which we received certain license rights. The agreement provided for an upfront payment as well as contingent milestone payments. Additionally, the agreement provides for a one-time indexed milestone payment upon the occurrence of an Indexed Milestone Event. The indexed milestone was determined to qualify as an embedded derivative liability, as described further in Note 5.

Collectively, our license agreements with Janssen, Michigan and UCSF provide for specified development, regulatory and sales-based milestone payments up to a total of $81.7 million payable upon occurrence of each stated event, of which $1.2 million relates to the initiation of certain development activities, $30.5 million relates to the achievement of specified regulatory approvals for the first indication and up to $50.0 million for the achievement of specified levels of product sales. Additional payments will be due for each subsequent indication if specified regulatory approvals are achieved. All milestone payments under the agreements will be recognized as research and development expense upon completion of the required events because the triggering events are not considered to be probable until they are achieved. As of December 31, 2015, we have not achieved any milestones under the agreements. Furthermore, if all the programs are successfully commercialized, we will be required to pay tiered royalties on annual net product sales ranging from the low single digits to the low teens, depending on the volume of sales and the respective agreement.

Araxes Asset Purchase Agreement

In December 2014, we entered into an asset purchase agreement with Araxes, which was amended and restated in February 2015, under which we purchased certain early stage patent rights related to compounds in the field of oncology for a purchase price of $500,000 payable under a convertible promissory note. All ongoing development, regulatory and commercial work will be completed fully and at our sole expense. The agreement allows for contingent milestone payments of $9.7 million throughout development and commercialization of the asset, of which $1.2 million relates to the initiation of certain development activities, and $8.5 million relates to the submission of certain regulatory filings and receipt of certain regulatory approvals. Additional payments will be due for each subsequent indication if specified regulatory approvals are achieved. We will recognize the milestones as expense when each event occurs. As of December 31, 2015, we have not achieved any milestones under the agreement. Furthermore, if the program is successfully commercialized, we will be required to pay tiered royalties on annual net product sales ranging in the low single digits, depending on the volume of sales. All milestone payments under the agreement will be recognized upon completion of the required events because the triggering events will not be considered to be probable until they are achieved.

10. Commitments and Contingencies

Sponsored Research Agreement with The University of Michigan

In February 2015, we entered into a Sponsored Research Agreement with Michigan under which we agreed to sponsor up to $2.7 million of research at Michigan over a three-year period. We receive a non-exclusive right to any technology developed under this agreement and have an option right for an exclusive right to any such licenses developed under the agreement. The Sponsored Research Agreement allows for termination with notice at any time by us. In the event of termination by us prior to the second anniversary of the agreement, other than due to breach by Michigan, we will be required to pay costs budgeted through the second anniversary up to $2.0 million of the sponsored research amount. Any costs incurred for the Sponsored Research Agreement will be expensed as incurred. For the year ended December 31, 2015, we recorded approximately $878,000 in research and development expense under this research agreement.

Operating Leases

In August 2014, we entered into a sublease agreement, or the Sublease, with Araxes for office space for a monthly rent of $4,680 per month. The Sublease includes rent escalation of 3% per year. The Sublease was amended effective September 1, 2014 to provide for a monthly rent of $4,820 per month. In addition to the base monthly rent, we are obligated to pay for operating expenses, taxes, insurance, and utilities applicable to the subleased property. The Sublease will expire on August 30, 2016. We plan to extend the term of the Sublease.

In August 2015, we entered into a lease agreement for approximately 3,766 square feet of office space located in Cambridge, Massachusetts. We paid a security deposit of approximately $44,000. The lease is subject to a 60 month term expiring on August 1, 2020, with initial monthly rent of approximately $21,000 per month, and subject to a 1.4% annual rent increase. Total base rent payable over the lease period is $1.3 million. In addition to base monthly rent, we are obligated to pay for taxes, insurance and utilities applicable to the leased property.

Future minimum payments required under the facility leases as of December 31, 2015 are summarized as follows, in thousands:

Year Ending December 31,		
2016	$	299
2017		263
2018		266
2019		270
2020		159
Total future minimum lease payments	$	1,257

Rent expense for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014 was $267,000 and $27,000, respectively.

Charitable Gift

We are obligated to make a charitable gift of $285,000 to the Leukemia and Lymphoma Society in connection with the Michigan agreement described in Note 9 to be paid in three equal parts: the first part was due and paid in January 2015, the second part was due and paid in January 2016 and the final part is due in January 2017. We recognized $285,000 as research and development expenses for the period from August 22, 2014 (Inception) to December 31, 2014. As of December 31, 2014, $190,000 was included in accounts payable and accrued expenses and $95,000 in long-term liabilities on the balance sheets. As of December 31, 2015, $95,000 was included in current liabilities and $95,000 in long-term liabilities on the balance sheets.

Litigation

From time to time, we may be involved in disputes, including litigation, relating to claims arising out of operations in the normal course of our business. Any of these claims could subject us to costly legal expenses and, while we generally believe that we have adequate insurance to cover many different types of liabilities, our insurance carriers may deny coverage or our policy limits may be inadequate to fully satisfy any damage awards or settlements. If this were to happen, the payment of any such awards could have a material adverse effect on our results of operations and financial position. Additionally, any such claims, whether or not successful, could damage our reputation and business. We currently are not a party to any legal proceedings, the adverse outcome of which, in management's opinion, individually or in the aggregate, would have a material adverse effect on our results of operations or financial position.

11. Stockholders' Equity

Immediately prior to the Merger, on March 6, 2015, Prior Kura sold an aggregate of 9,485,566 shares of its common stock at a price of $6.32 per share, for net proceeds of approximately $55.8 million, net of $4.1 million in fees. The Private Placement represented a qualified financing conversion event pursuant to Prior Kura's then outstanding convertible promissory notes. As such, upon the closing of the Private Placement, an aggregate of $7.5 million in principal under such convertible promissory notes and $115,000 in accrued interest through February 28, 2015 automatically converted into 1,204,870 shares of our common stock (which shares and net proceeds are included in the amounts set forth above). In addition, we incurred approximately $568,000 in costs related to the Merger which were accounted for as financing costs in additional paid-in capital.

In November 2015, we completed a public offering in which we sold an aggregate of 6,883,467 shares of common stock at a price of $8.00 per share. Net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $50.3 million.

Effective April 13, 2015, pursuant to our amended and restated certificate of incorporation, we have authorized capital stock consisting of 200,000,000 shares of common stock, par value $0.0001 per share, and 10,000,000 shares of preferred stock, par value $0.0001 per share.

12. Equity Incentive Plan

In August 2014, Prior Kura adopted the Prior Kura 2014 Equity Incentive Plan. In connection with the Merger as discussed in Note 1, at the Effective Time of the Merger, we adopted the Prior Kura 2014 Equity Incentive Plan and approved the amendment and restatement of the Prior Kura 2014 Equity Incentive Plan pursuant to the 2014 Plan, which became effective April 13, 2015. Under the 2014 Plan, a total of 5,975,000 shares were initially reserved for issuance.

As of December 31, 2015, there were 478,272 shares of common stock reserved for future stock awards under the 2014 Plan. The number of shares available for future grant under our 2014 Plan will automatically increase on January 1 of each year by 4% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, subject to the ability of our board of directors to take action to reduce the size of the increase in any given year. On January 1, 2016, the initial automatic increase pursuant to the 2014 Plan occurred, resulting in 854,822 additional shares available for future grant under the 2014 Plan. The 2014 Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock unit awards, performance-based stock awards and other forms of equity compensation to our employees and other service providers.

In addition, as of December 31, 2015, we had 25,000 shares of common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan, or ESPP, which has not been implemented as of December 31, 2015. The number of shares of our common stock reserved for issuance under the ESPP will automatically increase on January 1 of each calendar year by the lesser of 1% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year and 2,000,000 shares, subject to the ability of our board of directors to take action to reduce the size of the increase in any given year. On January 1, 2016, the initial automatic increase pursuant to the ESPP occurred, resulting in 213,705 additional shares available for future grant under the ESPP.

Stock Options

The exercise price of all stock options granted was equal to no less than the estimated fair market value of such stock on the date of grant. Stock options generally vest over a three to four-year period. The maximum contractual term for all options is ten years. The following is a summary of stock option activity for the year ended December 31, 2015, in thousands (except per share and years data):

	Number of Shares	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at December 31, 2014	—			
Granted	630	$ 8.85		
Canceled/forfeited	(56)	$ 6.32		
Outstanding at December 31, 2015	574	$ 9.10	9.1	$ 761
Exercisable at December 31, 2015	24	$ 6.62	2.3	$ 48

The assumptions used to estimate the fair value of stock options granted to employees in the year ended December 31, 2015 using the Black-Scholes option pricing model were as follows:

Weighted-average grant date fair value per share	$ 4.16
Expected volatility	70.8% — 72.8%
Expected term (in years)	6.00 — 6.08
Risk free interest rate	1.7% — 1.8%
Expected dividend yield	—

There were no stock options granted for the period from August 22, 2014 (Inception) to December 31, 2014. In estimating fair value for stock options issued under the 2014 Plan, expected volatility was based on historical volatility of comparable publicly-traded companies because our common stock has only been publicly traded since September 16, 2015. Due to the lack of historical option exercise data, we estimated the expected term using the simplified method. The risk-free interest rates are based on the U.S. Treasury zero-coupon bonds with maturities similar to those of the expected term of the award being valued. The expected dividend yield of zero reflects that we have not paid cash dividends since inception and do not intend to pay cash dividends in the foreseeable future. We apply an estimate of forfeitures at the time of grant based on historical experience and revise our estimate in subsequent periods if actual forfeitures differ from those estimates.

For the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, we recognized $399,000 and zero expense related to options, respectively. As of December 31, 2015, unrecognized estimated compensation expense related to options was $1.9 million, which is expected to be recognized over the weighted-average remaining requisite service period of approximately 3.2 years.

Restricted Stock Awards

Restricted stock awards were granted at a price equal to the estimated fair market value on the date of grant. The restricted stock awards generally vest over four years from the original vesting date, with certain grants subject to one-year cliff vesting. The vesting provisions of individual awards may vary as approved by our Board of Directors. In connection with the issuance of restricted common stock, we maintain a repurchase right where shares of restricted common stock are released from such repurchase right over a period of time of continued service by the recipient. The repurchase price for unvested stock awards will be the lower of (i) the fair market value of the shares of common stock on the date of repurchase or (ii) their original purchase price. As of December 31, 2015, there were 3,232,350 shares subject to repurchase, of which 2,716,515 shares were related to employee stock awards, and 515,835 shares were related to non-employee stock awards, respectively.

The following is a summary of restricted stock awards activity for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, in thousands (except per share data):

	Number of Shares	Employee	Non-employee	Weighted-Average Grant Date Fair Value
Unvested at August 22, 2014 (Inception)	—	—	—	$ —
Granted	4,944	4,096	848	$ 0.002
Vested	(411)	(322)	(89)	$ 0.002
Unvested at December 31, 2014	4,533	3,774	759	$ 0.002
Granted	—	—	—	$ —
Vested	(1,279)	(1,036)	(243)	$ 0.002
Forfeited	(21)	(21)	—	$ 0.011
Unvested at December 31, 2015	3,233	2,717	516	$ 0.002
Vested at December 31, 2015	1,690	1,358	332	$ 0.002

For the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, we recognized expense related to restricted stock awards totaling $1.9 million and $237,000, respectively, of which $1.7 million and $237,000 in expense related to non-employee restricted stock awards, respectively. As of December 31, 2015, unrecognized estimated compensation expense related to employee restricted stock awards was $360,000, which is expected to be recognized over the weighted-average remaining requisite service period of approximately 2.7 years.

The following table summarizes share-based compensation expense for all share-based compensation arrangements, in thousands:

	Year Ended December 31, 2015	Period From August 22, 2014 (Inception) to December 31, 2014
Research and development	$ 1,916	$ 233
General and administrative	343	4
Total share-based compensation expense	$ 2,259	$ 237

13. Related Party Transactions

As discussed in Note 8, in January 2015, we entered into a Note Purchase Agreement and Convertible Promissory Note for a $3.0 million loan with the January 2015 Note Holders, of which $710,000 were with certain officers and certain officers' related parties. In connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the notes was automatically converted into 479,667 shares of our common stock.

Our president and chief executive officer is also the sole managing member of our affiliated company Araxes. Four individuals are significant stockholders of each of us and Araxes. The following is a summary of all transactions with Araxes for the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014:

· *Asset Purchase Agreement*

Under the asset purchase agreement with Araxes described in Note 9, we purchased certain assets for an upfront purchase price of $500,000 payable under a convertible promissory note. This amount was recorded as research and development expenses, related party for the period from August 22, 2014 (Inception) to December 31, 2014. Additionally, the note was included within noncurrent notes payable, related party on the balance sheets as of December 31, 2014.

As described in Note 8, in connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the convertible note issued in connection with the Araxes asset purchase was automatically converted into 80,293 shares of our common stock.

· *Convertible Promissory Note*

As described in Note 8, in connection with the Private Placement, the total amount of unpaid principal and accrued interest as of February 28, 2015 under the convertible note issued in connection with the Araxes $2.0 million loan was automatically converted into 326,443 shares of our common stock.

· *Facility Sublease*

We sublease office space from Araxes for a base rent of approximately $5,000 per month plus operating expenses, taxes, insurance, and utilities applicable to the subleased property. Rent expense related to the Sublease for the years ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014 was $58,000 and $15,000, respectively. The Sublease will expire on August 30, 2016. We plan to extend the term of the Sublease.

· *Management Fees*

We have a management services agreement with Araxes under which Araxes pays us a fixed monthly fee of $100,000 for management services. In addition, the agreement allows for Araxes to reimburse us an amount equal to the number of full time equivalents, or FTE, performing research and development services for Araxes, at an annual FTE rate of $350,000, plus actual expenses as reasonably incurred. The initial term of this agreement expired on December 31, 2015 but, pursuant to the terms of the agreement, renews automatically for additional consecutive one-year periods. The agreement may be terminated by either party with a notice of at least 30 days prior to the expiration of the renewal term. For the year ended December 31, 2015 and period from August 22, 2014 (Inception) to December 31, 2014, we recorded reimbursements of $330,000 and $30,000, respectively, for research and development services provided to Araxes, which was recorded on the statements of operations and comprehensive loss as a reduction to research and development expenses. As of December 31, 2015 and 2014, $430,000 and $30,000 related to management fees and reimbursements of research and development services, respectively, are included in accounts receivable, related party on the balance sheets.

· *Services Agreement*

We have a services agreement with Wellspring Biosciences LLC, a wholly owned subsidiary of Araxes, which allows for payment of research and development services provided to us of an amount equal to the number of FTE's performing the services, at an annual FTE rate of $400,000, plus actual expenses as reasonably incurred. The initial term of this services agreement expired on December 31, 2015 but, pursuant to the terms of the agreement, renews automatically for additional consecutive one-year periods. The agreement may be terminated by either party with a notice of at least 30 days prior to the expiration of the then-renewal term. For the year ended December 31, 2015 and the period from August 22, 2014 (Inception) to December 31, 2014, we recognized $4.1 million and $130,000, respectively, from research and development services provided to us under this agreement as research and development expense, related party on the statements of operations and comprehensive loss. As of December 31, 2015 and 2014, $911,000 and zero, respectively, related to research and development services under this agreement are included in accrued expenses, related party on the balance sheets.

14. Employee Benefit Plan

We have a defined contribution 401(k) plan for all employees. Employees are eligible to participate in the plan if they are at least 21 years of age or older. Under the terms of the plan, employees may make voluntary contributions as a percentage or defined amount of compensation. We do not provide a matching contribution program.

15. Income Taxes

We file tax returns as prescribed by the tax laws of the jurisdictions in which we operate. In the normal course of business, our 2015 and 2014 tax years will be subject to examination by the federal and state jurisdictions where applicable. We have not been, nor are we currently, under examination by the federal or any state tax authority.

Our effective income tax rate differs from the statutory federal rate of 34% at December 31, 2015 and 2014, due to the following, in thousands:

	Year Ended December 31, 2015	Period From August 22, 2014 (Inception) to December 31, 2014
Income taxes at statutory federal rate	$ (7,693)	$ (1,248)
State income tax, net of federal benefit	(1,412)	(225)
Share-based compensation	712	80
Research and development tax credits	(544)	(28)
Other	29	13
Valuation allowance	8,908	1,408
Income tax expense	$ —	$ —

Significant components of our deferred tax assets at December 31, 2015 and 2014 are shown below, in thousands:

	December 31, 2015	December 31, 2014
Deferred tax assets		
Net operating loss carryforwards	$ 7,975	$ 442
Intangibles	999	732
Research and development tax credit carryforwards	573	28
Accruals	662	205
Other	106	1
Total deferred tax assets	10,315	1,408
Less valuation allowance	(10,315)	(1,408)
Net deferred tax assets	$ —	$ —

At December 31, 2015, we had federal and state net operating loss carryforwards of $19.5 million and $23.5 million, respectively. The federal loss carryforwards begin to expire in 2034, unless previously utilized. We have $23.4 million of state losses that begin to expire in 2034 and $66,000 of state loss carryforwards that begin to expire in 2030, unless previously utilized. We also have federal and state research credit carryforwards of $514,000 and $301,000, respectively. The federal research credits will begin to expire in 2034, unless previously utilized. The state research credits will carryforward indefinitely.

Management assesses the available positive and negative evidence to estimate if sufficient future taxable income will be generated to use existing deferred tax assets. Based on the weight of the evidence, including our limited existence and losses since inception, management has determined that it is more likely than not that the deferred tax assets will not be realized. The valuation allowance increased by $8.9 million from December 31, 2014 to December 31, 2015.

Pursuant to Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, annual use of our net operating loss, or NOL, and research and development, or R&D, credit carryforwards may be limited in the event a cumulative change in ownership of more than 50% occurs within a three-year period. We have not completed a study to assess whether an ownership change has occurred or whether there have been ownership changes. If we have experienced an ownership change at any time since our formation, utilization of our NOL or R&D credit carryforwards would be subject to an annual limitation which may result in the expiration of a portion of the NOL or R&D credit carryforwards before utilization. Any carryforwards that will expire prior to utilization as a result of such limitations will be removed from deferred tax assets, with a corresponding reduction of the valuation allowance.

In accordance with authoritative guidance, the impact of an uncertain income tax position is recognized at the largest amount that is “more likely than not” to be sustained upon audit by the relevant taxing authority. An uncertain tax position will not be recognized if it has less than a 50% likelihood of being sustained.

The following table summarizes the activity related to our unrecognized tax benefits, in thousands:

	December 31,	
	2015	2014
Gross unrecognized tax benefits at the beginning of the year	$ —	$ —
Increases from tax positions taken in the current year	167	—
Increases from tax positions taken in prior years	—	—
Decreases in tax positions taken in prior years	—	—
Tax settlements	—	—
Expiration of unrecognized tax benefits	—	—
Gross unrecognized tax benefits at the end of the year	$ 167	$ —

Our practice is to recognize interest and penalties related to income tax matters in income tax expense. We did not have any accrued interest or penalties included on our balance sheets and have not recognized interest and penalties on the statements of operations and comprehensive loss for the year ended December 31, 2015 or the period from August 22, 2014 (Inception) to December 31, 2014.

We do not expect that there will be a significant change in the unrecognized tax benefits over the next 12 months. Due to the existence of the valuation allowance, future changes in our unrecognized tax benefits will not impact our effective tax rate.

INDEX TO EXHIBITS

Exhibit Number	Description	Filed Herewith	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
2.1	Agreement and Plan of Merger, dated March 6, 2015, by and among the Registrant, Kura Operations, Inc. and Kura Oncology, Inc.		8-K (Exhibit 2.1)	3/12/2015	000-53058
2.2	Agreement and Plan of Merger, dated March 6, 2015, by and between the Registrant and Kura Oncology, Inc., relating to the name change of the Registrant.		8-K (Exhibit 2.2)	3/12/2015	000-53058
3.1	Amended and Restated Certificate of Incorporation of the Registrant.		S-1 (Exhibit 3.1)	4/17/2015	333-203503
3.2	Certificate of Merger relating to the Merger of Kura Operations, Inc. with and into Kura Oncology, Inc., filed with the Secretary of State of the State of Delaware on March 6, 2015.		8-K (Exhibit 3.3)	3/12/2015	000-53058
3.3	Certificate of Ownership and Merger relating to the merger of Kura Oncology, Inc. with and into the Registrant, filed with the Secretary of State of the State of Delaware on March 6, 2015, relating to the name change of the Registrant.		8-K (Exhibit 3.4)	3/12/2015	000-53058
3.4	Amended and Restated Bylaws of the Registrant.		8-K (Exhibit 3.5)	3/12/2015	000-53058
4.1	Form of Common Stock certificate.		8-K (Exhibit 4.1)	3/12/2015	000-53058
4.2	Registration Rights Agreement, dated as of March 6, 2015, by and among Kura Oncology, Inc. and the Investors listed on Schedule A thereto.		8-K (Exhibit 4.2)	3/12/2015	000-53058
10.1+	Kura Oncology, Inc. Amended and Restated 2014 Equity Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise and Stock Option Grant Notice thereunder.		8-K (Exhibit 10.1)	3/12/2015	000-53058
10.2+	Form of Restricted Stock Purchase Agreement and Restricted Stock Purchase Award Notice under the Kura Oncology, Inc. Amended and Restated 2014 Equity Incentive Plan.		8-K (Exhibit 10.2)	3/12/2015	000-53058
10.3+	Kura Oncology, Inc. 2015 Employee Stock Purchase Plan.		8-K (Exhibit 10.3)	3/12/2015	000-53058
10.4+	Form of Indemnification Agreement by and between the Registrant and each of its directors and officers.		8-K (Exhibit 10.4)	3/12/2015	000-53058
10.5*	License Agreement, dated December 18, 2014, by and between the Registrant and Janssen Pharmaceutica NV.		8-K/A (Exhibit 10.6)	7/2/2015	000-53058
10.6*	Amended and Restated Asset Purchase Agreement, dated February 12, 2015, by and between the Registrant and Araxes Pharma LLC.		8-K (Exhibit 10.7)	3/12/2015	000-53058

Exhibit Number	Description	Filed Herewith	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
10.7	Sublease, dated August 29, 2014, by and between the Registrant and Wellspring Biosciences LLC.		8-K (Exhibit 10.8)	3/12/2015	000-53058
10.8	First Amendment to Sublease, dated December 18, 2014, by and between the Registrant and Wellspring Biosciences LLC.		8-K (Exhibit 10.9)	3/12/2015	000-53058
10.9	Redemption Agreement, dated as of March 6, 2015, by and among the Registrant and stockholders of the Registrant listed therein.		8-K (Exhibit 10.10)	3/12/2015	000-53058
10.10	Indemnity Agreement, dated as of March 6, 2015, by and among the Registrant, Kura Oncology, Inc. and each of John Pappajohn and Matthew P. Kinley.		8-K (Exhibit 10.11)	3/12/2015	000-53058
10.11+	Kura Oncology, Inc. Non-Employee Director Compensation Policy, as amended.		S-1 (Exhibit 10.13)	10/20/2015	333-207534
10.12*	Services Agreement, effective as of October 1, 2014, by and between the Registrant and Wellspring Biosciences LLC.		S-1/A (Exhibit 10.13)	6/2/2015	333-203503
10.13*	Management Services Agreement, effective as of October 1, 2014, by and between the Registrant and Araxes Pharma LLC.		S-1/A (Exhibit 10.14)	6/2/2015	333-203503
10.14	Office Lease Agreement, dated August 1, 2015, by and between the Registrant and 55 Cambridge Parkway, LLC.		S-1 (Exhibit 10.16)	10/20/2015	333-207534
10.15+	Amended and Restated Executive Employment Agreement, effective as of January 29, 2016, by and between the Registrant and Troy E. Wilson, Ph.D., J.D.	X			
10.16+	Amended and Restated Executive Employment Agreement, effective as of January 29, 2016, by and between the Registrant and Antonio Gualberto, M.D., Ph.D.	X			
10.17+	Amended and Restated Executive Employment Agreement, effective as of January 29, 2016, by and between the Registrant and Annette North.	X			
23.1	Consent of Independent Registered Public Accounting Firm.	X			
24.1	Power of Attorney (see signature page).	X			
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
32.1	Certifications of Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350.	X			

Exhibit Number	Description	Filed Herewith	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
101.INS	XBRL Instance Document.	X			
101.SCH	XBRL Taxonomy Extension Schema Document.	X			
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	X			
101.DEF	XBRL Taxonomy Extension Definition.	X			
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	X			
101.PRE	XBRL Taxonomy Presentation Linkbase Document.	X			

+ Indicates management contract or compensatory plan.

* Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

KURA ONCOLOGY, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT
FOR
TROY E. WILSON

This Amended and Restated Executive Employment Agreement (the "***Agreement***"), entered into between Kura Oncology, Inc. (the "***Company***") and Troy E. Wilson, Ph.D., J.D., (the "***Executive***") (collectively, the "***Parties***"), is effective as of January 29, 2016 (the "***Effective Date***"). As of the Effective Date, this Agreement amends, restates and supersedes in its entirety the Executive Employment previously entered into by the Parties on October 1, 2014 and amended on May 12, 2015 (together, the "***Prior Agreement***").

WHEREAS, the Company desires Executive to continue to provide employment services to the Company, and wishes to provide Executive with certain compensation and benefits in return for such employment services; and

WHEREAS, Executive wishes to continue to be employed by the Company and to provide personal services to the Company in return for certain compensation and benefits.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. EMPLOYMENT BY THE COMPANY.

1.1 Position. Executive will continue to serve as the President and Chief Executive Officer of the Company. During the term of Executive's employment with the Company, Executive will devote Executive's best efforts and a reasonable amount of Executive's business time and attention to the business of the Company, and except for approved vacation periods and reasonable periods of illness or other incapacities permitted by the Company's general employment policies.

1.2 Duties and Location. Executive will perform such duties as are required by the Company's Board of Directors (the "***Board***"), to whom Executive will report. Executive's primary office location will be located in the Los Angeles, California area. The Company reserves the right to reasonably require Executive to perform Executive's duties at places other than Executive's primary office location from time to time, including the Company's office in La Jolla, California and to require reasonable business travel. The Company may modify Executive's job title and duties as it deems necessary and appropriate in light of the Company's needs and interests from time to time.

1.3 Policies and Procedures. The employment relationship between the Parties will be governed by the general employment policies and practices of the Company, except that when the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement will control.

2. COMPENSATION.

2.1 Salary. For services to be rendered hereunder, Executive will receive a base salary at the rate of $**429,000** per year (the "***Base Salary***") payable in installments in accordance with the Company's regular payroll schedule.

2.2 Bonus. Executive will be eligible for an annual discretionary bonus of up to **50**% of Executive's Base Salary (the "***Annual Bonus***"). Whether Executive receives an Annual Bonus for any given year, and the amount of any such Annual Bonus, will be determined by the Company's Board of Directors ("***Board***") in its sole discretion based upon the Company's and Executive's achievement of objectives and milestones to be determined on an annual basis by the Board. Executive must remain an active employee through the end of any given calendar year in order to earn an Annual Bonus for that year and any such bonus will be paid prior to March 15 of the year following the year in which such bonus was earned. Executive will not be eligible for, and will not earn, any Annual Bonus (including a prorated bonus) if Executive's employment terminates for any reason before the end of the calendar year.

3. STANDARD COMPANY BENEFITS. Executive shall be entitled to participate in all employee benefit programs for which Executive is eligible under the terms and conditions of the benefit plans that may be in effect from time to time and provided by the Company to its employees. The Company reserves the right to cancel or change the benefit plans or programs it offers to its employees at any time.

4. VACATION. Executive will be entitled to accrue and use paid vacation in accordance with the terms of the Company's vacation policy and practices, provided, however, that in no event will Executive's vacation accrual rate be lower than 3 weeks per year.

5. EXPENSES. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in furtherance or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

6. TERMINATION OF EMPLOYMENT; SEVERANCE.

6.1 At-Will Employment. Executive's employment relationship is at-will. Either Executive or the Company may terminate the employment relationship at any time, with or without Cause or advance notice.

6.2 Termination Without Cause; Resignation for Good Reason.

(a) Not in Connection with a Corporate Transaction. In the event Executive's employment with the Company is terminated by the Company without Cause (other than by reason of death or disability), or Executive resigns for Good Reason, then provided such termination or resignation constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h), without regard to any alternative definition thereunder, a "***Separation from Service***"), the Separation from Service occurs more than 59 days prior to or 12 months after the closing of a Corporate Transaction, the Company shall pay Executive's base salary and accrued and unused vacation benefits earned through the date of termination, at the rate in effect at the time of termination, less standard deductions and withholdings. In addition, if Executive provides a signed release of claims in a form reasonably satisfactory to the Company (the "***Release***") and allows such Release to become irrevocable and effective no later than 60 days following Executive's Separation from Service, and provided that Executive remains in compliance with the terms of this Agreement, the Company will provide Executive with the following severance benefits:

(i) a cash lump-sum payment in an amount equal to 12 months of Executive's annual base salary at the rate in effect on the effective date of Executive's Separation from Service, ignoring any decrease in base salary that forms the basis for Good Reason, payable on the 60th day following Executive's Separation from Service.

(ii) Provided Executive timely elects continued coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), the Company will pay the COBRA premiums to continue Executive's coverage (including coverage for eligible dependents, if applicable), subject to withholding if deemed necessary to comply with applicable laws, through the period (the "***COBRA Premium Period***") starting on the Executive's Separation from Service and ending on the earliest to occur of: (i) 12 months following Executive's Separation from Service; (ii) the date Executive becomes eligible for group health insurance coverage through a new employer; or (iii) the date Executive ceases to be eligible for COBRA continuation coverage for any reason. In the event Executive becomes covered under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Premium Period, Executive must immediately notify the Company of such event.

(b) In Connection with a Corporate Transaction. In the event Executive's employment with the Company is terminated by the Company without Cause (other than by reason of death or disability), or Executive resigns for Good Reason, and provided such termination or resignation constitutes a Separation from Service and such the Separation from Service occurs within 59 days prior to, on or within 12 months following the closing of a Corporate Transaction, the Company shall pay Executive's base salary and accrued and unused vacation benefits earned through the date of termination, at the rate in effect at the time of termination, less standard deductions and withholdings. In addition, if Executive provides a signed Release and allows such Release to become irrevocable and effective no later than 60 days following Executive's Separation from Service, and provided that Executive remains in compliance with the terms of this Agreement, the Company will provide Executive with the following severance benefits:

(i) A cash lump-sum payment in an amount equal to 15 months of Executive's annual base salary at the rate in effect on the effective date of Executive's Separation from Service, ignoring any decrease in base salary that forms the basis for Good Reason, less standard deductions and withholdings, payable on the 60th day following Executive's Separation from Service.

(ii) A cash lump-sum payment in an amount equal to the Executive's full target bonus amount for services to be performed during the year in which the Corporate Transaction occurs, less standard deductions and withholdings, payable on the 60th day following Executive's Separation from Service.

(iii) Provided Executive timely elects continued coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), the Company will pay the COBRA premiums to continue Executive's coverage (including coverage for eligible dependents, if applicable), subject to withholding if deemed necessary to comply with applicable laws, through the period (the "***COBRA Premium Period***") starting on the Executive's Separation from Service and ending on the earliest to occur of: (i) 15 months following Executive's Separation from Service; (ii) the date Executive becomes eligible for group health insurance coverage through a new employer; or (iii) the date Executive ceases to be eligible for COBRA continuation coverage for any reason. In the event Executive becomes covered under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Premium Period, Executive must immediately notify the Company of such event.

(iv) One hundred percent of any equity held by Executive will be deemed vested and exercisable (if applicable) as of Executive's last day of employment, provided, however, that with respect to any performance based vesting equity awards held by Executive that have multiple vesting levels depending upon the level of performance, such equity awards will vest at the target level.

(c) COBRA. Notwithstanding Sections 6.2(a)(ii) and 6.2(b)(iii), if the Company determines, in its sole discretion, that the Company cannot provide the COBRA premium benefits without potentially incurring financial costs or penalties under applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof pay Executive a taxable cash amount, which payment shall be made regardless of whether the Executive or his qualifying family members elect COBRA continuation coverage (the "***Health Care Benefit Payment***"). The Health Care Benefit Payment shall be paid in monthly or bi-weekly installments on the same schedule that the COBRA premiums would otherwise have been paid to the insurer. The Health Care Benefit Payment shall be equal to the amount that the Company otherwise would have paid for COBRA insurance premiums (which amount shall be calculated based on the premium for the first month of coverage), and shall be paid until the expiration of the COBRA Premium Period, but determined without regard to whether or not the Executive continues to be eligible for COBRA coverage.

6.3 Resignation Without Good Reason; Termination for Cause; Death or Disability. If Executive resigns without Good Reason, or the Company terminates Executive's service for Cause, or upon a termination due to Executive's death or disability, then all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned), and Executive will not be entitled to any severance benefits under Section 6.2(a) or Section 6.2(b).

7. Section 280G.

7.1 If any payment or benefit Executive would receive from the Company or otherwise (***"Payment"***) would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the ***"Excise Tax"***), then such Payment shall be equal to the Reduced Amount. The "Reduced Amount" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and

including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (x) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A of the Code that would not otherwise be subject to taxes pursuant to Section 409A of the Code, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A of the Code as follows: (A) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (B) as a second priority, Payments that are contingent on future events (e.g., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (C) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A of the Code shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A of the Code.

7.2 In the event it is subsequently determined by the Internal Revenue Service that some portion of the Reduced Amount as determined pursuant to clause (x) in the preceding paragraph is subject to the Excise Tax, Executive agrees to promptly return to the Company a sufficient amount of the Payment so that no portion of the Reduced Amount is subject to the Excise Tax. For the avoidance of doubt, if the Reduced Amount is determined pursuant to clause (y) in the preceding paragraph, Executive will have no obligation to return any portion of the Payment pursuant to the preceding sentence.

7.3 Unless Executive and the Company agree on an alternative accounting firm, the accounting firm engaged by the Company for general tax compliance purposes as of the day prior to the effective date of the Corporate Transaction shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the Corporate Transaction, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

7.4 The Company shall use commercially reasonable efforts to cause the accounting firm engaged to make the determinations hereunder to provide its calculations, together with detailed supporting documentation, to Executive and the Company within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by Executive or the Company) or such other time as requested by Executive or the Company.

8. SECTION 409A.

8.1 It is intended that all of the severance benefits and other payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Code Section 409A provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9), and this Agreement will be construed to the greatest extent possible as consistent with those provisions, and to the extent not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Code Section 409A.

8.2 A termination of employment will not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a Separation from Service and, for purposes of any such provision of this Agreement, references to a "termination," "termination of service" or like terms will mean Separation from Service. If Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is considered deferred compensation under Code Section 409A payable on account of a Separation from Service, such payment or benefit will be made or provided at the date which is the earlier of (A) the expiration of the six-month period measured from the date of such Separation from Service of Executive, and (B) the date of Executive's death, to the extent required under Code Section 409A. Upon the expiration of the foregoing delay period, all payments and benefits delayed pursuant to this Section 8.2 (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) will be paid or reimbursed to Executive in a lump sum, and any remaining payments and benefits due under this Agreement will be paid or provided in accordance with the normal payment dates specified for them herein.

8.3 To the extent that reimbursements or other in-kind benefits under this Agreement constitute "nonqualified deferred compensation" for purposes of Code Section 409A, (A) all expenses or other reimbursements hereunder will be made on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (B) any right to reimbursement or in-kind benefits will not be subject to liquidation or exchange for another benefit, and (C) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year will in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

8.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement will be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period will be within the sole discretion of the Company. Notwithstanding any other provision of this Agreement to the contrary, in no event will any payment under this Agreement that constitutes "nonqualified deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

9. DEFINITIONS.

9.1 ***"Cause"*** with respect to Executive means Executive has: (a) been convicted of or pled guilty or *nolo contendere* to a felony or any crime involving moral turpitude or dishonesty; (b) participated in a fraud or act of dishonesty against the Company; (c) materially breached any agreement between such Executive and the Company or any written policy of the Company, and not cured such breach within five days of the Company's written notice of such breach; (d) engaged in conduct that demonstrates gross unfitness to serve; or (e) engaged in willful misconduct or refused to comply with any lawful directive of the Company, and not cured such noncompliance within five days of the Company's written notice of such noncompliance.

9.2 ***"Code"*** means the Internal Revenue Code of 1986, as amended.

9.3 "***Good Reason***" will exist for Executive's resignation from employment with the Company if any of the following actions are taken by the Company without Executive's prior written consent:

(a) a material reduction in Executive's base salary, unless pursuant to a salary reduction program applicable generally to the Company's similarly situated employees;

(b) a material reduction in Executive's duties (including responsibilities and/or authorities);

(c) a material reduction in the authority, duties, or responsibilities of the supervisor to whom Executive is required to report, including a requirement that Executive report to an employee of the Company instead of the Board;

(d) relocation of Executive's principal place of employment to a place that increases Executive's one-way commute by more than 50 miles as compared to Executive's then-current principal place of employment immediately prior to such relocation; or

(e) any other action or inaction that constitutes a material breach by the Company of this Agreement or any agreement under which Executive provides services.

Provided, however that, such termination by the Executive shall only be deemed for Good Reason pursuant to the foregoing definition if (i) the Company is given written notice from the Executive within 30 days following the first occurrence of the condition that he considers to constitute Good Reason describing the condition and the Company fails to satisfactorily remedy such condition within 30 days following such written notice, and (ii) the Executive terminates employment within 90 days following the end of the period within which the Company was entitled to remedy the condition constituting Good Reason but failed to do so.

9.4 ***"Corporate Transaction"*** means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) a sale, lease or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its subsidiaries;

(b) a merger, consolidation, or similar transaction of the Company following which such entity is not the surviving entity;

(c) a merger, consolidation or similar transaction of the Company following which such entity is the surviving entity but the shares outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

Notwithstanding the foregoing, the term Corporate Transaction will not include (i) a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, (ii) the acquisition of securities of the Company by an investor or any affiliate thereof that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (iii) the merger transaction between the Company and Kura Oncology, Inc. (f/k/a Zeta Acquisition Corp. III) effectuated March 31, 2015. In addition, to the extent required for compliance with Code Section 409A, in no event will an event be deemed a Corporate Transaction if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

10. PROPRIETARY INFORMATION OBLIGATIONS.

10.1 Confidential Information Agreement. As a condition of employment, Executive will continue to abide by the Company's standard form of Proprietary Information and Invention Assignment Agreement (the "***Confidentiality Agreement***") and Arbitration Agreement previously executed by Executive.

10.2 Third-Party Agreements and Information. Executive represents and warrants that Executive's employment by the Company does not conflict with any prior employment or consulting agreement or other agreement with any third party, and that Executive will perform Executive's duties to the Company without violating any such agreement. Executive represents and warrants that Executive does not possess confidential information arising out of prior employment, consulting, or other third party relationships, that would be used in connection with Executive's employment with the Company, except as expressly authorized by that third party. During Executive's employment with the Company, Executive will use in the performance of Executive's duties only information which is generally known and used by persons with training and experience comparable to Executive's own, common knowledge in the industry, otherwise legally in the public domain, or obtained or developed by the Company or by Executive in the course of Executive's work for the Company.

11. OUTSIDE ACTIVITIES DURING EMPLOYMENT.

11.1 Non-Company Business. Except with the prior written consent of the Board, Executive will not during the term of Executive's employment with the Company undertake or engage in any employment, occupation or business enterprise, other than ones in which Executive is a passive investor or as permitted under Section 11.2. Executive shall be entitled to serve on the board of directors of such other companies as may be approved in advance by the Chief Executive Officer, in each case, so long as Executive remain in compliance with Section 11 and such service does not interfere with Executive's duties under this Agreement. Executive may engage in civic and not-for-profit activities so long as such activities do not materially interfere with the performance of Executive's duties hereunder.

11.2 No Adverse Interests. Except with the prior written consent of the Board, Executive will not during the term of Executive's employment with the Company acquire, assume or participate in, directly or indirectly, any position, investment or interest known to be adverse or antagonistic to the Company, its business or prospects, financial or otherwise, provided that this does not prohibit Executive's continued involvement in any existing investments or ownership, for investment purposes only, of not more than 3% of the outstanding stock of any company listed on a national securities exchange, or actively traded in a national over-the-counter market. For the sake of clarity, Executive may continue Executive's involvement and ownership in Avidity Nanomedicines LLC, Araxes Pharma LLC and Wellspring Biosciences LLC.

12. Non-Solicitation. Executive agrees that during the period of employment with the Company and for 12 months after the date Executive's employment is terminated for any reason, Executive will not, either directly or through others, solicit or encourage or attempt to solicit or encourage any employee, independent contractor, or consultant of the Company to terminate his or her relationship with the Company in order to become an employee, consultant or independent contractor to or for any other person or entity.

13. Dispute Resolution. To ensure the timely and economical resolution of disputes that may arise in connection with Executive's employment with the Company, Executive and the Company agree that any and all disputes, claims, or causes of action arising from or relating to the enforcement, breach, performance, negotiation, execution, or interpretation of this Agreement, Executive's employment, or the termination of Executive's employment, including but not limited to statutory claims, will be resolved to the fullest extent permitted by law by final, binding and confidential arbitration, by a single arbitrator, in San Diego, California, conducted by JAMS, Inc. ("***JAMS***") under the then applicable JAMS rules (which can be found at the following web address: http://www.jamsadr.com/rulesclauses). By agreeing to this arbitration procedure, both Executive and the Company waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. The Company acknowledges that Executive will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator will: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator will be authorized to award any or all remedies that Executive or the Company would be entitled to seek in a court of law. The Company will pay all JAMS' arbitration fees in excess of the amount of court fees that would be required of the Executive if the dispute were decided in a court of law. Nothing in this Agreement is intended to prevent either Executive or the Company from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Any awards or orders in such arbitrations may be entered and enforced as judgments in the federal and state courts of any competent jurisdiction.

14. General Provisions.

14.1 Notices. Any notices provided must be in writing and will be deemed effective upon the earlier of personal delivery (including personal delivery by fax) or the next day after sending by overnight carrier, to the Company at its primary office location and to Executive at the address as listed on the Company payroll.

14.2 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction to the extent possible in keeping with the intent of the parties.

14.3 Waiver. Any waiver of any breach of any provisions of this Agreement must be in writing to be effective, and it will not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

14.4 Complete Agreement. This Agreement, together with the Confidentiality Agreement, constitutes the entire agreement between Executive and the Company with regard to this subject matter and is the complete, final, and exclusive embodiment of the Parties' agreement with regard to this subject matter. This Agreement is entered into without reliance on any promise or representation, written or oral, other than those expressly contained herein, and it supersedes any other such promises, warranties or representations, including but not limited to the Prior Agreement. It is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in a writing signed by a duly authorized officer of the Company.

14.5 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, but all of which taken together will constitute one and the same Agreement.

14.6 Headings. The headings of the paragraphs hereof are inserted for convenience only and will not be deemed to constitute a part hereof nor to affect the meaning thereof.

14.7 Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive and the Company, and their respective successors, assigns, heirs, executors and administrators, except that Executive may not assign any of his duties hereunder and he may not assign any of his rights hereunder without the written consent of the Company, which will not be withheld unreasonably.

14.8 Choice of Law. All questions concerning the construction, validity and interpretation of this Agreement will be governed by the laws of the State of California.

In Witness Whereof, the Parties have executed this Agreement on the day and year first written above.

Kura Oncology, Inc.

By: /s/ Heidi Henson
Name: Heidi Henson
Title: CFO

Executive

/s/ Troy E. Wilson, Ph.D., J.D.
Troy E. Wilson, Ph.D., J.D.

KURA ONCOLOGY, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT
FOR
ANTONIO GUALBERTO

This Amended and Restated Executive Employment Agreement (the "***Agreement***"), entered into between Kura Oncology, Inc. (the "***Company***") and Antonio Gualberto (the "***Executive***") (collectively, the "***Parties***"), is effective as of January 29, 2016 (the "***Effective Date***"). As of the Effective Date, this Agreement amends, restates and supersedes in its entirety the Executive Employment previously entered into by the Parties on October 1, 2014 and amended on May 12, 2015 (together, the "***Prior Agreement***").

WHEREAS, the Company desires Executive to continue to provide employment services to the Company, and wishes to provide Executive with certain compensation and benefits in return for such employment services; and

WHEREAS, Executive wishes to continue to be employed by the Company and to provide personal services to the Company in return for certain compensation and benefits.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. EMPLOYMENT BY THE COMPANY.

1.1 Position. Executive will continue to serve as the Chief Medical Officer of the Company. During the term of Executive's employment with the Company, Executive will devote Executive's best efforts and substantially all of Executive's business time and attention to the business of the Company, and except for approved vacation periods and reasonable periods of illness or other incapacities permitted by the Company's general employment policies.

1.2 Duties and Location. Executive will perform such duties as are required by the Company's Chief Executive Officer to whom Executive will report. Executive's primary office location will be the Company's Cambridge, Massachusetts office. The Company reserves the right to reasonably require Executive to perform Executive's duties at places other than Executive's primary office location from time to time, and to require reasonable business travel. The Company may modify Executive's job title and duties as it deems necessary and appropriate in light of the Company's needs and interests from time to time.

1.3 Policies and Procedures. The employment relationship between the Parties will be governed by the general employment policies and practices of the Company, except that when the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement will control.

2. COMPENSATION.

2.1 Salary. For services to be rendered hereunder, Executive will receive a base salary at the rate of $**380,100** per year (the "***Base Salary***") payable in installments in accordance with the Company's regular payroll schedule.

2.2 Bonus. Executive will be eligible for an annual discretionary bonus of up to 35% of Executive's Base Salary (the "***Annual Bonus***"). Whether Executive receives an Annual Bonus for any given year, and the amount of any such Annual Bonus, will be determined by the Company's Board of Directors ("***Board***") in its sole discretion based upon the Company's and Executive's achievement of objectives and milestones to be determined on an annual basis by the Board. Executive must remain an active employee through the end of any given calendar year in order to earn an Annual Bonus for that year and any such bonus will be paid prior to March 15 of the year following the year in which such bonus was earned. Executive will not be eligible for, and will not earn, any Annual Bonus (including a prorated bonus) if Executive's employment terminates for any reason before the end of the calendar year.

3. STANDARD COMPANY BENEFITS. Executive shall be entitled to participate in all employee benefit programs for which Executive is eligible under the terms and conditions of the benefit plans that may be in effect from time to time and provided by the Company to its employees. The Company reserves the right to cancel or change the benefit plans or programs it offers to its employees at any time.

4. VACATION. Executive will be entitled to accrue and use paid vacation in accordance with the terms of the Company's vacation policy and practices, provided, however, that in no event will Executive's vacation accrual rate be lower than 3 weeks per year.

5. EXPENSES. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in furtherance or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

6. TERMINATION OF EMPLOYMENT; SEVERANCE.

6.1 At-Will Employment. Executive's employment relationship is at-will. Either Executive or the Company may terminate the employment relationship at any time, with or without Cause or advance notice.

6.2 Termination Without Cause; Resignation for Good Reason.

(a) Not in Connection with a Corporate Transaction. In the event Executive's employment with the Company is terminated by the Company without Cause (other than by reason of death or disability), or Executive resigns for Good Reason, then provided such termination or resignation constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h), without regard to any alternative definition thereunder, a "***Separation from Service***"), the Separation from Service occurs more than 59 days prior to or 12 months after the closing of a Corporate Transaction, the Company shall pay Executive's base salary and accrued and unused vacation benefits earned through the date of termination, at the rate in effect at the time of termination, less standard deductions and withholdings. In addition, if Executive provides a signed release of claims in a form reasonably satisfactory to the Company

(the "***Release***") and allows such Release to become irrevocable and effective no later than 60 days following Executive's Separation from Service, and provided that Executive remains in compliance with the terms of this Agreement, the Company will provide Executive with the following severance benefits:

(i) a cash lump-sum payment in an amount equal to 12 months of Executive's annual base salary at the rate in effect on the effective date of Executive's Separation from Service, ignoring any decrease in base salary that forms the basis for Good Reason, payable on the 60th day following Executive's Separation from Service.

(ii) Provided Executive timely elects continued coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), the Company will pay the COBRA premiums to continue Executive's coverage (including coverage for eligible dependents, if applicable), subject to withholding if deemed necessary to comply with applicable laws, through the period (the "***COBRA Premium Period***") starting on the Executive's Separation from Service and ending on the earliest to occur of: (i) 12 months following Executive's Separation from Service; (ii) the date Executive becomes eligible for group health insurance coverage through a new employer; or (iii) the date Executive ceases to be eligible for COBRA continuation coverage for any reason. In the event Executive becomes covered under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Premium Period, Executive must immediately notify the Company of such event.

(b) In Connection with a Corporate Transaction. In the event Executive's employment with the Company is terminated by the Company without Cause (other than by reason of death or disability), or Executive resigns for Good Reason, and provided such termination or resignation constitutes a Separation from Service and such the Separation from Service occurs within 59 days prior to, on or within 12 months following the closing of a Corporate Transaction, the Company shall pay Executive's base salary and accrued and unused vacation benefits earned through the date of termination, at the rate in effect at the time of termination, less standard deductions and withholdings. In addition, if Executive provides a signed Release and allows such Release to become irrevocable and effective no later than 60 days following Executive's Separation from Service, and provided that Executive remains in compliance with the terms of this Agreement, the Company will provide Executive with the following severance benefits:

(i) A cash lump-sum payment in an amount equal to 12 months of Executive's annual base salary at the rate in effect on the effective date of Executive's Separation from Service, ignoring any decrease in base salary that forms the basis for Good Reason, less standard deductions and withholdings, payable on the 60th day following Executive's Separation from Service.

(ii) A cash lump-sum payment in an amount equal to the Executive's full target bonus amount for services to be performed during the year in which the Corporate Transaction occurs, less standard deductions and withholdings, payable on the 60th day following Executive's Separation from Service.

(iii) Provided Executive timely elects continued coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), the Company will pay the COBRA premiums to continue Executive's coverage (including coverage for eligible dependents, if applicable), subject to withholding if deemed necessary to comply with

applicable laws, through the period (the "***COBRA Premium Period***") starting on the Executive's Separation from Service and ending on the earliest to occur of: (i) 12 months following Executive's Separation from Service; (ii) the date Executive becomes eligible for group health insurance coverage through a new employer; or (iii) the date Executive ceases to be eligible for COBRA continuation coverage for any reason. In the event Executive becomes covered under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Premium Period, Executive must immediately notify the Company of such event.

(iv) One hundred percent of any equity held by Executive will be deemed vested and exercisable (if applicable) as of Executive's last day of employment, provided, however, that with respect to any performance based vesting equity awards held by Executive that have multiple vesting levels depending upon the level of performance, such equity awards will vest at the target level.

(c) COBRA. Notwithstanding Sections 6.2(a)(ii) and 6.2(b)(iii), if the Company determines, in its sole discretion, that the Company cannot provide the COBRA premium benefits without potentially incurring financial costs or penalties under applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof pay Executive a taxable cash amount, which payment shall be made regardless of whether the Executive or the Executive's qualifying family members elect COBRA continuation coverage (the "***Health Care Benefit Payment***"). The Health Care Benefit Payment shall be paid in monthly or bi-weekly installments on the same schedule that the COBRA premiums would otherwise have been paid to the insurer. The Health Care Benefit Payment shall be equal to the amount that the Company otherwise would have paid for COBRA insurance premiums (which amount shall be calculated based on the premium for the first month of coverage), and shall be paid until the expiration of the COBRA Premium Period, but determined without regard to whether or not the Executive continues to be eligible for COBRA coverage.

6.3 Resignation Without Good Reason; Termination for Cause; Death or Disability. If Executive resigns without Good Reason, or the Company terminates Executive's service for Cause, or upon a termination due to Executive's death or disability, then all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned), and Executive will not be entitled to any severance benefits under Section 6.2(a) or Section 6.2(b).

7. Section 280G.

7.1 If any payment or benefit Executive would receive from the Company or otherwise (***"Payment"***) would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the ***"Excise Tax"***), then such Payment shall be equal to the Reduced Amount. The "Reduced Amount" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (x) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for

Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A of the Code that would not otherwise be subject to taxes pursuant to Section 409A of the Code, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A of the Code as follows: (A) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (B) as a second priority, Payments that are contingent on future events (e.g., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (C) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A of the Code shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A of the Code.

7.2 In the event it is subsequently determined by the Internal Revenue Service that some portion of the Reduced Amount as determined pursuant to clause (x) in the preceding paragraph is subject to the Excise Tax, Executive agrees to promptly return to the Company a sufficient amount of the Payment so that no portion of the Reduced Amount is subject to the Excise Tax. For the avoidance of doubt, if the Reduced Amount is determined pursuant to clause (y) in the preceding paragraph, Executive will have no obligation to return any portion of the Payment pursuant to the preceding sentence.

7.3 Unless Executive and the Company agree on an alternative accounting firm, the accounting firm engaged by the Company for general tax compliance purposes as of the day prior to the effective date of the Corporate Transaction shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the Corporate Transaction, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

7.4 The Company shall use commercially reasonable efforts to cause the accounting firm engaged to make the determinations hereunder to provide its calculations, together with detailed supporting documentation, to Executive and the Company within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by Executive or the Company) or such other time as requested by Executive or the Company.

8. SECTION 409A.

8.1 It is intended that all of the severance benefits and other payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Code Section 409A provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9), and this Agreement will be construed to the greatest extent possible as consistent with those provisions, and to the extent not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Code Section 409A.

8.2 A termination of employment will not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits

upon or following a termination of employment unless such termination is also a Separation from Service and, for purposes of any such provision of this Agreement, references to a "termination," "termination of service" or like terms will mean Separation from Service. If Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is considered deferred compensation under Code Section 409A payable on account of a Separation from Service, such payment or benefit will be made or provided at the date which is the earlier of (A) the expiration of the six-month period measured from the date of such Separation from Service of Executive, and (B) the date of Executive's death, to the extent required under Code Section 409A. Upon the expiration of the foregoing delay period, all payments and benefits delayed pursuant to this Section 8.2 (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) will be paid or reimbursed to Executive in a lump sum, and any remaining payments and benefits due under this Agreement will be paid or provided in accordance with the normal payment dates specified for them herein.

8.3 To the extent that reimbursements or other in-kind benefits under this Agreement constitute "nonqualified deferred compensation" for purposes of Code Section 409A, (A) all expenses or other reimbursements hereunder will be made on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (B) any right to reimbursement or in-kind benefits will not be subject to liquidation or exchange for another benefit, and (C) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year will in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

8.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement will be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period will be within the sole discretion of the Company. Notwithstanding any other provision of this Agreement to the contrary, in no event will any payment under this Agreement that constitutes "nonqualified deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

9. DEFINITIONS.

9.1 ***"Cause"*** with respect to Executive means Executive has: (a) been convicted of or pled guilty or *nolo contendere* to a felony or any crime involving moral turpitude or dishonesty; (b) participated in a fraud or act of dishonesty against the Company; (c) materially breached any agreement between such Executive and the Company or any written policy of the Company, and not cured such breach within five days of the Company's written notice of such breach; (d) engaged in conduct that demonstrates gross unfitness to serve; or (e) engaged in willful misconduct or refused to comply with any lawful directive of the Company, and not cured such noncompliance within five days of the Company's written notice of such noncompliance.

9.2 ***"Code"*** means the Internal Revenue Code of 1986, as amended.

9.3 "***Good Reason***" will exist for Executive's resignation from employment with the Company if any of the following actions are taken by the Company without Executive's prior written consent:

(a) a material reduction in Executive's base salary, unless pursuant to a salary reduction program applicable generally to the Company's similarly situated employees;

(b) a material reduction in Executive's duties (including responsibilities and/or authorities);

(c) a material reduction in the authority, duties, or responsibilities of the supervisor to whom Executive is required to report, including a requirement that Executive report to an employee of the Company instead of the Chief Executive Officer;

(d) relocation of Executive's principal place of employment to a place that increases Executive's one-way commute by more than 50 miles as compared to Executive's then-current principal place of employment immediately prior to such relocation; or

(e) any other action or inaction that constitutes a material breach by the Company of this Agreement or any agreement under which Executive provides services.

Provided, however that, such termination by the Executive shall only be deemed for Good Reason pursuant to the foregoing definition if (i) the Company is given written notice from the Executive within 30 days following the first occurrence of the condition that Executive considers to constitute Good Reason describing the condition and the Company fails to satisfactorily remedy such condition within 30 days following such written notice, and (ii) the Executive terminates employment within 90 days following the end of the period within which the Company was entitled to remedy the condition constituting Good Reason but failed to do so.

9.4 ***"Corporate Transaction"*** means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) a sale, lease or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its subsidiaries;

(b) a merger, consolidation, or similar transaction of the Company following which such entity is not the surviving entity;

(c) a merger, consolidation or similar transaction of the Company following which such entity is the surviving entity but the shares outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

Notwithstanding the foregoing, the term Corporate Transaction will not include (i) a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, (ii) the acquisition of securities of the Company by an investor or any affiliate thereof that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity

securities or (iii) the merger transaction between the Company and Kura Oncology, Inc. (f/k/a Zeta Acquisition Corp. III) effectuated March 31, 2015. In addition, to the extent required for compliance with Code Section 409A, in no event will an event be deemed a Corporate Transaction if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

10. PROPRIETARY INFORMATION OBLIGATIONS.

10.1 Confidential Information Agreement. As a condition of employment, Executive will continue to abide by the Company's standard form of Proprietary Information and Invention Assignment Agreement (the "***Confidentiality Agreement***") and Arbitration Agreement previously executed by Executive.

10.2 Third-Party Agreements and Information. Executive represents and warrants that Executive's employment by the Company does not conflict with any prior employment or consulting agreement or other agreement with any third party, and that Executive will perform Executive's duties to the Company without violating any such agreement. Executive represents and warrants that Executive does not possess confidential information arising out of prior employment, consulting, or other third party relationships, that would be used in connection with Executive's employment with the Company, except as expressly authorized by that third party. During Executive's employment with the Company, Executive will use in the performance of Executive's duties only information which is generally known and used by persons with training and experience comparable to Executive's own, common knowledge in the industry, otherwise legally in the public domain, or obtained or developed by the Company or by Executive in the course of Executive's work for the Company.

11. OUTSIDE ACTIVITIES DURING EMPLOYMENT.

11.1 Non-Company Business. Except with the prior written consent of the Chief Executive Officer, Executive will not during the term of Executive's employment with the Company undertake or engage in any employment, occupation or business enterprise, other than ones in which Executive is a passive investor or as permitted under Section 11.2. Executive shall be entitled to serve on the board of directors of such other companies as may be approved in advance by the Chief Executive Officer, in each case, so long as Executive remain in compliance with Section 11 and such service does not interfere with Executive's duties under this Agreement. Executive may engage in civic and not-for-profit activities so long as such activities do not materially interfere with the performance of Executive's duties hereunder.

11.2 No Adverse Interests. Except with the prior written consent of the Chief Executive Officer, Executive will not during the term of Executive's employment with the Company acquire, assume or participate in, directly or indirectly, any position, investment or interest known to be adverse or antagonistic to the Company, its business or prospects, financial or otherwise, provided that this does not prohibit Executive's continued involvement in any existing investments or ownership, for investment purposes only, of not more than 3% of the outstanding stock of any company listed on a national securities exchange, or actively traded in a national over-the-counter market.

12. **NON-SOLICITATION.** Executive agrees that during the period of employment with the Company and for 12 months after the date Executive's employment is terminated for any reason, Executive will not, either directly or through others, solicit or encourage or attempt to solicit or encourage any employee, independent contractor, or consultant of the Company to terminate his or her relationship with the Company in order to become an employee, consultant or independent contractor to or for any other person or entity.

13. **DISPUTE RESOLUTION.** To ensure the timely and economical resolution of disputes that may arise in connection with Executive's employment with the Company, Executive and the Company agree that any and all disputes, claims, or causes of action arising from or relating to the enforcement, breach, performance, negotiation, execution, or interpretation of this Agreement, Executive's employment, or the termination of Executive's employment, including but not limited to statutory claims, will be resolved to the fullest extent permitted by law by final, binding and confidential arbitration, by a single arbitrator, in San Diego, California, conducted by JAMS, Inc. ("***JAMS***") under the then applicable JAMS rules (which can be found at the following web address: http://www.jamsadr.com/rulesclauses). By agreeing to this arbitration procedure, both Executive and the Company waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. The Company acknowledges that Executive will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator will: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator will be authorized to award any or all remedies that Executive or the Company would be entitled to seek in a court of law. The Company will pay all JAMS' arbitration fees in excess of the amount of court fees that would be required of the Executive if the dispute were decided in a court of law. Nothing in this Agreement is intended to prevent either Executive or the Company from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Any awards or orders in such arbitrations may be entered and enforced as judgments in the federal and state courts of any competent jurisdiction.

14. **GENERAL PROVISIONS.**

14.1 **Notices.** Any notices provided must be in writing and will be deemed effective upon the earlier of personal delivery (including personal delivery by fax) or the next day after sending by overnight carrier, to the Company at its primary office location and to Executive at the address as listed on the Company payroll.

14.2 **Severability.** Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction to the extent possible in keeping with the intent of the parties.

14.3 **Waiver.** Any waiver of any breach of any provisions of this Agreement must be in writing to be effective, and it will not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

14.4 **Complete Agreement.** This Agreement, together with the Confidentiality Agreement, constitutes the entire agreement between Executive and the Company with regard to

this subject matter and is the complete, final, and exclusive embodiment of the Parties' agreement with regard to this subject matter. This Agreement is entered into without reliance on any promise or representation, written or oral, other than those expressly contained herein, and it supersedes any other such promises, warranties or representations, including but not limited to the Prior Agreement. It is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in a writing signed by a duly authorized officer of the Company.

14.5 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, but all of which taken together will constitute one and the same Agreement.

14.6 Headings. The headings of the paragraphs hereof are inserted for convenience only and will not be deemed to constitute a part hereof nor to affect the meaning thereof.

14.7 Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive and the Company, and their respective successors, assigns, heirs, executors and administrators, except that Executive may not assign any of Executive's duties hereunder and Executive may not assign any of Executive's rights hereunder without the written consent of the Company, which will not be withheld unreasonably.

14.8 Choice of Law. All questions concerning the construction, validity and interpretation of this Agreement will be governed by the laws of the State of California.

In Witness Whereof, the Parties have executed this Agreement on the day and year first written above.

Kura Oncology, Inc.

By: /s/ Heidi Henson
Name: Heidi Henson
Title: CFO

Executive

/s/ Antonio Gualberto, M.D., Ph.D.
Antonio Gualberto, M.D., Ph.D.

KURA ONCOLOGY, INC.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT
FOR
ANNETTE NORTH

This Amended and Restated Executive Employment Agreement (the "***Agreement***"), entered into between Kura Oncology, Inc. (the "***Company***") and Annette North (the "***Executive***") (collectively, the "***Parties***"), is effective as of January 29, 2016 (the "***Effective Date***"). As of the Effective Date, this Agreement amends, restates and supersedes in its entirety the Executive Employment previously entered into by the Parties on January 12, 2015 and amended on May 12, 2015 (together, the "***Prior Agreement***").

WHEREAS, the Company desires Executive to continue to provide employment services to the Company, and wishes to provide Executive with certain compensation and benefits in return for such employment services; and

WHEREAS, Executive wishes to continue to be employed by the Company and to provide personal services to the Company in return for certain compensation and benefits.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. EMPLOYMENT BY THE COMPANY.

1.1 Position. Executive will continue to serve as the Senior Vice President, General Counsel of the Company. During the term of Executive's employment with the Company, Executive will devote Executive's best efforts and substantially all of Executive's business time and attention to the business of the Company, and except for approved vacation periods and reasonable periods of illness or other incapacities permitted by the Company's general employment policies.

1.2 Duties and Location. Executive will perform such duties as are required by the Company's Chief Executive Officer to whom Executive will report. Executive's primary office location will be the Company's La Jolla, California office. The Company reserves the right to reasonably require Executive to perform Executive's duties at places other than Executive's primary office location from time to time, and to require reasonable business travel. The Company may modify Executive's job title and duties as it deems necessary and appropriate in light of the Company's needs and interests from time to time.

1.3 Policies and Procedures. The employment relationship between the Parties will be governed by the general employment policies and practices of the Company, except that when the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement will control.

2. COMPENSATION.

2.1 Salary. For services to be rendered hereunder, Executive will receive a base salary at the rate of $**331,900** per year (the "***Base Salary***") payable in installments in accordance with the Company's regular payroll schedule.

2.2 Bonus. Executive will be eligible for an annual discretionary bonus of up to 35% of Executive's Base Salary (the "***Annual Bonus***"). Whether Executive receives an Annual Bonus for any given year, and the amount of any such Annual Bonus, will be determined by the Company's Board of Directors ("***Board***") in its sole discretion based upon the Company's and Executive's achievement of objectives and milestones to be determined on an annual basis by the Board. Executive must remain an active employee through the end of any given calendar year in order to earn an Annual Bonus for that year and any such bonus will be paid prior to March 15 of the year following the year in which such bonus was earned. Executive will not be eligible for, and will not earn, any Annual Bonus (including a prorated bonus) if Executive's employment terminates for any reason before the end of the calendar year.

3. STANDARD COMPANY BENEFITS. Executive shall be entitled to participate in all employee benefit programs for which Executive is eligible under the terms and conditions of the benefit plans that may be in effect from time to time and provided by the Company to its employees. The Company reserves the right to cancel or change the benefit plans or programs it offers to its employees at any time.

4. VACATION. Executive will be entitled to accrue and use paid vacation in accordance with the terms of the Company's vacation policy and practices, provided, however, that in no event will Executive's vacation accrual rate be lower than 3 weeks per year.

5. EXPENSES. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in furtherance or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

6. TERMINATION OF EMPLOYMENT; SEVERANCE.

6.1 At-Will Employment. Executive's employment relationship is at-will. Either Executive or the Company may terminate the employment relationship at any time, with or without Cause or advance notice.

6.2 Termination Without Cause; Resignation for Good Reason.

(a) Not in Connection with a Corporate Transaction. In the event Executive's employment with the Company is terminated by the Company without Cause (other than by reason of death or disability), or Executive resigns for Good Reason, then provided such termination or resignation constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h), without regard to any alternative definition thereunder, a "***Separation from Service***"), the Separation from Service occurs more than 59 days prior to or 12 months after the closing of a Corporate Transaction, the Company shall pay Executive's base salary and accrued and unused vacation benefits earned through the date of termination, at the rate in effect at the time of termination, less standard deductions and withholdings. In addition, if Executive provides a signed release of claims in a form reasonably satisfactory to the Company (the "***Release***") and allows such Release to become irrevocable and effective no later than 60 days following Executive's Separation from Service, and provided that Executive remains in compliance with the terms of this Agreement, the Company will provide Executive with the following severance benefits:

(i) a cash lump-sum payment in an amount equal to 12 months of Executive's annual base salary at the rate in effect on the effective date of Executive's Separation from Service, ignoring any decrease in base salary that forms the basis for Good Reason, payable on the 60th day following Executive's Separation from Service.

(ii) Provided Executive timely elects continued coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), the Company will pay the COBRA premiums to continue Executive's coverage (including coverage for eligible dependents, if applicable), subject to withholding if deemed necessary to comply with applicable laws, through the period (the "***COBRA Premium Period***") starting on the Executive's Separation from Service and ending on the earliest to occur of: (i) 12 months following Executive's Separation from Service; (ii) the date Executive becomes eligible for group health insurance coverage through a new employer; or (iii) the date Executive ceases to be eligible for COBRA continuation coverage for any reason. In the event Executive becomes covered under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Premium Period, Executive must immediately notify the Company of such event.

(b) In Connection with a Corporate Transaction. In the event Executive's employment with the Company is terminated by the Company without Cause (other than by reason of death or disability), or Executive resigns for Good Reason, and provided such termination or resignation constitutes a Separation from Service and such the Separation from Service occurs within 59 days prior to, on or within 12 months following the closing of a Corporate Transaction, the Company shall pay Executive's base salary and accrued and unused vacation benefits earned through the date of termination, at the rate in effect at the time of termination, less standard deductions and withholdings. In addition, if Executive provides a signed Release and allows such Release to become irrevocable and effective no later than 60 days following Executive's Separation from Service, and provided that Executive remains in compliance with the terms of this Agreement, the Company will provide Executive with the following severance benefits:

(i) A cash lump-sum payment in an amount equal to 12 months of Executive's annual base salary at the rate in effect on the effective date of Executive's Separation from Service, ignoring any decrease in base salary that forms the basis for Good Reason, less standard deductions and withholdings, payable on the 60th day following Executive's Separation from Service.

(ii) A cash lump-sum payment in an amount equal to the Executive's full target bonus amount for services to be performed during the year in which the Corporate Transaction occurs, less standard deductions and withholdings, payable on the 60th day following Executive's Separation from Service.

(iii) Provided Executive timely elects continued coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), the Company will pay the COBRA premiums to continue Executive's coverage (including coverage for eligible dependents, if applicable), subject to withholding if deemed necessary to comply with applicable laws, through the period (the "***COBRA Premium Period***") starting on the Executive's Separation from Service and ending on the earliest to occur of: (i) 12 months following Executive's Separation from Service; (ii) the date Executive becomes eligible for group health insurance coverage through a new employer; or (iii) the date Executive ceases to be eligible for COBRA continuation coverage for any reason. In the event Executive becomes covered under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Premium Period, Executive must immediately notify the Company of such event.

(iv) One hundred percent of any equity held by Executive will be deemed vested and exercisable (if applicable) as of Executive's last day of employment, provided, however, that with respect to any performance based vesting equity awards held by Executive that have multiple vesting levels depending upon the level of performance, such equity awards will vest at the target level.

(c) COBRA. Notwithstanding Sections 6.2(a)(ii) and 6.2(b)(iii), if the Company determines, in its sole discretion, that the Company cannot provide the COBRA premium benefits without potentially incurring financial costs or penalties under applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof pay Executive a taxable cash amount, which payment shall be made regardless of whether the Executive or the Executive's qualifying family members elect COBRA continuation coverage (the "***Health Care Benefit Payment***"). The Health Care Benefit Payment shall be paid in monthly or bi-weekly installments on the same schedule that the COBRA premiums would otherwise have been paid to the insurer. The Health Care Benefit Payment shall be equal to the amount that the Company otherwise would have paid for COBRA insurance premiums (which amount shall be calculated based on the premium for the first month of coverage), and shall be paid until the expiration of the COBRA Premium Period, but determined without regard to whether or not the Executive continues to be eligible for COBRA coverage.

6.3 Resignation Without Good Reason; Termination for Cause; Death or Disability. If Executive resigns without Good Reason, or the Company terminates Executive's service for Cause, or upon a termination due to Executive's death or disability, then all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned), and Executive will not be entitled to any severance benefits under Section 6.2(a) or Section 6.2(b).

7. Section 280G.

7.1 If any payment or benefit Executive would receive from the Company or otherwise (***"Payment"***) would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the ***"Excise Tax"***), then such Payment shall be equal to the Reduced Amount. The "Reduced Amount" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and

including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (x) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A of the Code that would not otherwise be subject to taxes pursuant to Section 409A of the Code, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A of the Code as follows: (A) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (B) as a second priority, Payments that are contingent on future events (e.g., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (C) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A of the Code shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A of the Code.

7.2 In the event it is subsequently determined by the Internal Revenue Service that some portion of the Reduced Amount as determined pursuant to clause (x) in the preceding paragraph is subject to the Excise Tax, Executive agrees to promptly return to the Company a sufficient amount of the Payment so that no portion of the Reduced Amount is subject to the Excise Tax. For the avoidance of doubt, if the Reduced Amount is determined pursuant to clause (y) in the preceding paragraph, Executive will have no obligation to return any portion of the Payment pursuant to the preceding sentence.

7.3 Unless Executive and the Company agree on an alternative accounting firm, the accounting firm engaged by the Company for general tax compliance purposes as of the day prior to the effective date of the Corporate Transaction shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the Corporate Transaction, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder.

7.4 The Company shall use commercially reasonable efforts to cause the accounting firm engaged to make the determinations hereunder to provide its calculations, together with detailed supporting documentation, to Executive and the Company within fifteen (15) calendar days after the date on which Executive's right to a Payment is triggered (if requested at that time by Executive or the Company) or such other time as requested by Executive or the Company.

8. SECTION 409A.

8.1 It is intended that all of the severance benefits and other payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Code Section 409A provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9), and this Agreement will be construed to the greatest extent possible as consistent with those provisions, and to the extent not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Code Section 409A.

8.2 A termination of employment will not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a Separation from Service and, for purposes of any such provision of this Agreement, references to a "termination," "termination of service" or like terms will mean Separation from Service. If Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is considered deferred compensation under Code Section 409A payable on account of a Separation from Service, such payment or benefit will be made or provided at the date which is the earlier of (A) the expiration of the six-month period measured from the date of such Separation from Service of Executive, and (B) the date of Executive's death, to the extent required under Code Section 409A. Upon the expiration of the foregoing delay period, all payments and benefits delayed pursuant to this Section 8.2 (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) will be paid or reimbursed to Executive in a lump sum, and any remaining payments and benefits due under this Agreement will be paid or provided in accordance with the normal payment dates specified for them herein.

8.3 To the extent that reimbursements or other in-kind benefits under this Agreement constitute "nonqualified deferred compensation" for purposes of Code Section 409A, (A) all expenses or other reimbursements hereunder will be made on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (B) any right to reimbursement or in-kind benefits will not be subject to liquidation or exchange for another benefit, and (C) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year will in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

8.4 For purposes of Code Section 409A, Executive's right to receive any installment payments pursuant to this Agreement will be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period will be within the sole discretion of the Company. Notwithstanding any other provision of this Agreement to the contrary, in no event will any payment under this Agreement that constitutes "nonqualified deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

9. DEFINITIONS.

9.1 ***"Cause"*** with respect to Executive means Executive has: (a) been convicted of or pled guilty or *nolo contendere* to a felony or any crime involving moral turpitude or dishonesty; (b) participated in a fraud or act of dishonesty against the Company; (c) materially breached any agreement between such Executive and the Company or any written policy of the Company, and not cured such breach within five days of the Company's written notice of such breach; (d) engaged in conduct that demonstrates gross unfitness to serve; or (e) engaged in willful

misconduct or refused to comply with any lawful directive of the Company, and not cured such noncompliance within five days of the Company's written notice of such noncompliance.

9.2 ***"Code"*** means the Internal Revenue Code of 1986, as amended.

9.3 "***Good Reason***" will exist for Executive's resignation from employment with the Company if any of the following actions are taken by the Company without Executive's prior written consent:

(a) a material reduction in Executive's base salary, unless pursuant to a salary reduction program applicable generally to the Company's similarly situated employees;

(b) a material reduction in Executive's duties (including responsibilities and/or authorities);

(c) a material reduction in the authority, duties, or responsibilities of the supervisor to whom Executive is required to report, including a requirement that Executive report to an employee of the Company instead of the Chief Executive Officer;

(d) relocation of Executive's principal place of employment to a place that increases Executive's one-way commute by more than 50 miles as compared to Executive's then-current principal place of employment immediately prior to such relocation; or

(e) any other action or inaction that constitutes a material breach by the Company of this Agreement or any agreement under which Executive provides services.

Provided, however that, such termination by the Executive shall only be deemed for Good Reason pursuant to the foregoing definition if (i) the Company is given written notice from the Executive within 30 days following the first occurrence of the condition that Executive considers to constitute Good Reason describing the condition and the Company fails to satisfactorily remedy such condition within 30 days following such written notice, and (ii) the Executive terminates employment within 90 days following the end of the period within which the Company was entitled to remedy the condition constituting Good Reason but failed to do so.

9.4 ***"Corporate Transaction"*** means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) a sale, lease or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its subsidiaries;

(b) a merger, consolidation, or similar transaction of the Company following which such entity is not the surviving entity;

(c) a merger, consolidation or similar transaction of the Company following which such entity is the surviving entity but the shares outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

Notwithstanding the foregoing, the term Corporate Transaction will not include (i) a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of

the Company, (ii) the acquisition of securities of the Company by an investor or any affiliate thereof that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (iii) the merger transaction between the Company and Kura Oncology, Inc. (f/k/a Zeta Acquisition Corp. III) effectuated March 31, 2015. In addition, to the extent required for compliance with Code Section 409A, in no event will an event be deemed a Corporate Transaction if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

10. PROPRIETARY INFORMATION OBLIGATIONS.

10.1 Confidential Information Agreement. As a condition of employment, Executive will continue to abide by the Company's standard form of Proprietary Information and Invention Assignment Agreement (the "***Confidentiality Agreement***") and Arbitration Agreement previously executed by Executive.

10.2 Third-Party Agreements and Information. Executive represents and warrants that Executive's employment by the Company does not conflict with any prior employment or consulting agreement or other agreement with any third party, and that Executive will perform Executive's duties to the Company without violating any such agreement. Executive represents and warrants that Executive does not possess confidential information arising out of prior employment, consulting, or other third party relationships, that would be used in connection with Executive's employment with the Company, except as expressly authorized by that third party. During Executive's employment with the Company, Executive will use in the performance of Executive's duties only information which is generally known and used by persons with training and experience comparable to Executive's own, common knowledge in the industry, otherwise legally in the public domain, or obtained or developed by the Company or by Executive in the course of Executive's work for the Company.

11. OUTSIDE ACTIVITIES DURING EMPLOYMENT.

11.1 Non-Company Business. Except with the prior written consent of the Chief Executive Officer, Executive will not during the term of Executive's employment with the Company undertake or engage in any employment, occupation or business enterprise, other than ones in which Executive is a passive investor or as permitted under Section 11.2. Executive shall be entitled to serve on the board of directors of such other companies as may be approved in advance by the Chief Executive Officer, in each case, so long as Executive remain in compliance with Section 11 and such service does not interfere with Executive's duties under this Agreement. Executive may engage in civic and not-for-profit activities so long as such activities do not materially interfere with the performance of Executive's duties hereunder.

11.2 No Adverse Interests. Except with the prior written consent of the Chief Executive Officer, Executive will not during the term of Executive's employment with the Company acquire, assume or participate in, directly or indirectly, any position, investment or interest known to be adverse or antagonistic to the Company, its business or prospects, financial or otherwise, provided that this does not prohibit Executive's continued involvement in any existing investments or ownership, for investment purposes only, of not more than 3% of the outstanding stock of any company listed on a national securities exchange, or actively traded in a national over-the-counter market.

12. **NON-SOLICITATION.** Executive agrees that during the period of employment with the Company and for 12 months after the date Executive's employment is terminated for any reason, Executive will not, either directly or through others, solicit or encourage or attempt to solicit or encourage any employee, independent contractor, or consultant of the Company to terminate his or her relationship with the Company in order to become an employee, consultant or independent contractor to or for any other person or entity.

13. **DISPUTE RESOLUTION.** To ensure the timely and economical resolution of disputes that may arise in connection with Executive's employment with the Company, Executive and the Company agree that any and all disputes, claims, or causes of action arising from or relating to the enforcement, breach, performance, negotiation, execution, or interpretation of this Agreement, Executive's employment, or the termination of Executive's employment, including but not limited to statutory claims, will be resolved to the fullest extent permitted by law by final, binding and confidential arbitration, by a single arbitrator, in San Diego, California, conducted by JAMS, Inc. ("***JAMS***") under the then applicable JAMS rules (which can be found at the following web address: http://www.jamsadr.com/rulesclauses). By agreeing to this arbitration procedure, both Executive and the Company waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. The Company acknowledges that Executive will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator will: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator will be authorized to award any or all remedies that Executive or the Company would be entitled to seek in a court of law. The Company will pay all JAMS' arbitration fees in excess of the amount of court fees that would be required of the Executive if the dispute were decided in a court of law. Nothing in this Agreement is intended to prevent either Executive or the Company from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Any awards or orders in such arbitrations may be entered and enforced as judgments in the federal and state courts of any competent jurisdiction.

14. **GENERAL PROVISIONS.**

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14.2 **Severability.** Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction to the extent possible in keeping with the intent of the parties.

14.3 **Waiver.** Any waiver of any breach of any provisions of this Agreement must be in writing to be effective, and it will not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.

14.4 **Complete Agreement.** This Agreement, together with the Confidentiality Agreement, constitutes the entire agreement between Executive and the Company with regard to this subject matter and is the complete, final, and exclusive embodiment of the Parties' agreement with regard to this subject matter. This Agreement is entered into without reliance on any promise

or representation, written or oral, other than those expressly contained herein, and it supersedes any other such promises, warranties or representations, including but not limited to the Prior Agreement. It is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in a writing signed by a duly authorized officer of the Company.

14.5 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one party, but all of which taken together will constitute one and the same Agreement.

14.6 Headings. The headings of the paragraphs hereof are inserted for convenience only and will not be deemed to constitute a part hereof nor to affect the meaning thereof.

14.7 Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive and the Company, and their respective successors, assigns, heirs, executors and administrators, except that Executive may not assign any of Executive's duties hereunder and Executive may not assign any of Executive's rights hereunder without the written consent of the Company, which will not be withheld unreasonably.

14.8 Choice of Law. All questions concerning the construction, validity and interpretation of this Agreement will be governed by the laws of the State of California.

In Witness Whereof, the Parties have executed this Agreement on the day and year first written above.

Kura Oncology, Inc.

By: /s/ Heidi Henson
Name: Heidi Henson
Title: CFO

Executive

/s/ Annette North
Annette North

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-203504) pertaining to the Amended and Restated 2014 Equity Incentive Plan and the 2015 Employee Stock Purchase Plan of Kura Oncology, Inc. of our report dated March 17, 2016, with respect to the financial statements of Kura Oncology, Inc. included in this Annual Report (Form 10-K) of Kura Oncology, Inc. for the year ended December 31, 2015.

/s/ Ernst & Young LLP

San Diego, California
March 17, 2016

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Troy E. Wilson, Ph.D., J.D., certify that:

1. I have reviewed this Form 10-K of Kura Oncology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 17, 2016

By: /s/ Troy E. Wilson, Ph.D., J.D.
Troy E. Wilson, Ph.D., J.D.
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Heidi Henson, certify that:

1. I have reviewed this Form 10-K of Kura Oncology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 17, 2016

By: /s/ Heidi Henson

Heidi Henson
Chief Financial Officer and Secretary

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Kura Oncology, Inc. (the "Company") on Form 10-K for the period ended December 31, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Troy E. Wilson, Ph.D., J.D., as President and Chief Executive Officer of the Company, and Heidi Henson, as Chief Financial Officer and Secretary of the Company, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Troy E. Wilson, Ph.D., J.D.
Troy E. Wilson, Ph.D., J.D.
President and Chief Executive Officer

Date: March 17, 2016

/s/ Heidi Henson
Heidi Henson
Chief Financial Officer and Secretary

Date: March 17, 2016