ARQULE INC
Form 10-K
February 29, 2016
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015 COMMISSION FILE NUMBER: 000-21429
ARQULE, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	04-3221586
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(I.R.S. EMPLOYER IDENTIFICATION NO.)

ONE WALL STREET, BURLINGTON, MASSACHUSETTS 01803
(ADDRESS OF PRINCIPAL EXECUTIVE OFFICES INCLUDING ZIP CODE)
REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE:
(781) 994-0300
SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

(TITLE OF EACH CLASS)	NAME OF EACH EXCHANGE ON WHICH REGISTERED
COMMON STOCK, $.01 PAR VALUE	The NASDAQ Stock Market LLC (NASDAQ Global Market)

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:
NONE
Indicate by check mark if the registrant is a well-known issuer, as defined in Rule 405 of the Securities Act. Yes No
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No
Indicate by check mark whether the registrant has submitted electronically and posted on its 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 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 large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check One)

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

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

The aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2015 was: $100,514,960.

There were 62,929,706 shares of the registrant's common stock outstanding as of February 17, 2016.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement for the Registrant's Annual Meeting of Stockholders to be held on May 24, 2016 which will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year end of December 31, 2015, are incorporated by reference into Part III of the Form 10-K.

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FORWARD-LOOKING STATEMENTS

You should carefully consider the risks described below together with all of the other information included in this Form 10-K, including Item 1A “Risk Factors,” before making an investment decision. An investment in our common stock involves a high degree of risk. We operate in a dynamic and rapidly changing industry that involves numerous uncertainties. The risks and uncertainties described below are not the only ones we face. Other risks and uncertainties, including those that we do not currently consider material, may impair our business. If any of the risks discussed below actually occur, our business, financial condition, operating results or cash flows could be materially adversely affected. This could cause the trading price of our common stock to decline, and you may lose all or part of your investment.

This Form 10-K, including information incorporated herein by reference, contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. All statements that are not descriptions of historical fact are forward-looking statements, based on estimates, assumptions and projections that are subject to risks and uncertainties. These statements can generally be identified by use of forward looking terminology such as “believes”, “expects”, “intends”, “may”, “will”, “plans”, “should”, “anticipates,” “potential” or similar terminology. Although we believe t expectations reflected in such forward looking statements are reasonable as of the date thereof, such expectations are based on certain assumptions regarding the progress of product development efforts including clinical trials and preclinical activities conducted by ourselves and third parties, the prosecution of existing and efforts to execute new collaborative agreements, receipt of potential milestones and royalties under our collaborative agreements, government regulations, reliance on third parties to conduct clinical trials and perform research and analysis services, adequate financial resources, changes in economic and business conditions, and other factors relating to our growth. Such expectations may not materialize if product development efforts, including any necessary trials of our potential drug candidates, are delayed or suspended, if our compounds fail to demonstrate safety and efficiency, if positive early results are not repeated in later studies or in humans, if the therapeutic value of our compounds is not realized, if planned acquisitions or negotiations with potential collaborators are delayed or unsuccessful, if we are unsuccessful at integrating acquired assets or technologies, or if other assumptions prove incorrect. The forward-looking statements contained herein represent the judgment of ArQule as of the date of this Form 10-K. ArQule disclaims any intent or obligation to update any forward-looking statement except to the extent required by law.

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PART I

ITEM 1. BUSINESS

BUSINESS OVERVIEW

We are a biopharmaceutical company engaged in the research and development of innovative therapeutics to treat cancers and rare diseases. Our mission is to discover, develop and commercialize novel small molecule drugs in areas of high unmet need that will dramatically extend and improve the lives of our patients. These drugs target biological pathways implicated in a wide range of cancers and certain non-oncology indications. Our discovery and development efforts are guided, when possible, by an understanding of the role of biomarkers, which are indicators of a particular biological condition or process and may predict the clinical benefit of our compounds in defined patient populations. Our proprietary clinical-stage pipeline consists of four drug candidates, all of which are in targeted patient populations making ArQule a leader among companies our size in precision medicine.

ArQule has a long history of kinase drug discovery and development, having discovered and introduced eight kinase inhibitors into human clinical trials with a ninth about to enter the clinic. Our drug discovery efforts have been informed by our historical expertise in chemistry, our work in rational drug design and by our insight into kinase binding and regulation. We have applied this knowledge to produce significant chemical matter for a number of kinase targets and to build an extensive library of proprietary compounds with the potential to target multiple kinases in oncology and other therapeutic areas, such as rare diseases. We expect to bring further preclinical programs forward either directly or with collaborators and to interrogate our library against new targets beyond kinases.

Our lead product candidate is tivantinib (ARQ 197), an orally administered, small molecule inhibitor of the c-Met receptor tyrosine kinase ("MET") and its biological pathway. MET is a promising target for cancer therapy, based on its multiple roles in cancerous cell proliferation, tumor spread, new blood vessel formation and resistance to certain drug therapies. We and our partners, Daiichi Sankyo Co., Ltd. ("Daiichi Sankyo") and Kyowa Hakko Kirin Co., Ltd. ("Kyowa Hakko Kirin"), are implementing a worldwide clinical development program with tivantinib. Our strategy is to focus on the most promising indications within our clinical programs based upon continually generated and updated clinical and pre-clinical data. Our lead indication is liver cancer ("hepatocellular carcinoma" or "HCC"), and we are currently conducting two Phase 3 trials with our partners. We have also completed earlier-stage single agent and combination therapy trials and pre-clinical experiments with tivantinib and other anti-cancer agents that may provide data to support trials in additional indications.

Our most advanced ongoing clinical trial, the METIV-HCC trial, is a pivotal Phase 3 randomized, double-blind, controlled study of tivantinib as single agent therapy in previously treated patients with MET diagnostic-high, inoperable HCC conducted by Daiichi Sankyo and us. The primary endpoint is overall survival ("OS") in the intent-to-treat ("ITT") population, and the secondary endpoint is progression-free survival ("PFS") in the same population. We completed patient accrual in the METIV-HCC trial in December 2015 and have randomized over 300 patients at more than 100 clinical sites worldwide. We anticipate that a planned interim assessment for the trial, which is triggered when 60 percent of events occur, will take place by early in the second quarter of 2016. This trial is being conducted under a Special Protocol Assessment ("SPA") agreement with the U.S. Food and Drug Administration ("FDA").

In addition to METIV-HCC, a second Phase 3 clinical trial in HCC with tivantinib known as JET-HCC is ongoing in Japan. On February 4, 2014, Kyowa Hakko Kirin announced the initiation of this trial in Japanese patients with MET diagnostic-high, inoperable HCC previously treated with sorafenib. The trial is a randomized, double-blind placebo-controlled study to compare PFS in patients treated with tivantinib with those treated with placebo. Kyowa Hakko Kirin plans to enroll approximately 160 patients in this study.

We have licensed commercial rights to tivantinib for human cancer indications to Daiichi Sankyo in the U.S., Europe, South America and the rest of the world, excluding Japan and certain other Asian countries, where we have licensed commercial rights to Kyowa Hakko Kirin. Our agreements with these partners

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provide for possible future milestone payments, royalties on product sales, and development funding, in addition to significant payments that we have already received. To date we have received $100 million in upfront and milestone payments from Daiichi Sankyo, $15 million of which was related to the first patient enrolled in the METIV-HCC trial. That milestone was netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. To date, we have received $48 million in upfront and milestone payments from Kyowa Hakko Kirin.

We have collaborated with the National Cancer Institute ("NCI") through its Cancer Therapy Evaluation Program ("CTEP") to explore the clinical potential of tivantinib in a variety of tumor indications while we focus our internal efforts on the two Phase 3 programs in HCC. These CTEP-sponsored trials included Phase 2 single agent trials in prostate cancer (randomized), multiple myeloma, breast cancer and malignant mesothelioma, and Phase 2 combination therapy trials in kidney cancer (with or without erlotinib, randomized) and head and neck cancer (with or without cetuximab, randomized).

Our proprietary pipeline of product candidates is directed toward molecular targets and biological processes with demonstrated roles in the development of both human cancers and rare, non-oncology diseases. These product candidates include: ARQ 092, designed to inhibit the AKT serine/threonine kinase; ARQ 087, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor ("FGFR") family; and ARQ 761, a Beta lapachone analog being evaluated in investigator-sponsored testing as a promoter of NQO1-mediated programmed cancer cell necrosis. We expect to add to our proprietary pipeline with the initiation of a Phase 1 clinical trial in oncology with our next generation AKT inhibitor, ARQ 751, in the first half of 2016. Specific tumor types and biomarkers have been identified to guide our clinical testing, based on analyses of Phase 1a anti-cancer activity in humans, preclinical findings and scientific literature.

Under our agreement with the National Human Genome Research Institute of the NIH, a Phase 1 clinical trial investigating ARQ 092 as a potential treatment for Proteus syndrome, a rare overgrowth disorder caused by a mutation in the AKT 1 gene, began enrolling patients in November 2015. A Phase 1b clinical trial for ARQ 092 has completed enrollment in lymphoma and endometrial cancers and continues to enroll in cancers harboring AKT 1 and PI3K mutations. Clinical development of ARQ 087 has advanced into Phase 2 for intrahepatic cholangiocarcinoma ("iCCA") following the observation of two confirmed partial responses in this patient population in the Phase 1 portion of the trial. Additional testing is on-going in solid tumors as part of a Phase 1b expansion cohort of this trial. ARQ 761 is currently in a Phase 1b clinical trial for solid tumors and Phase 1b/2 for pancreatic cancer.

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PRODUCT DEVELOPMENT PROGRAMS

The chart below displays our lead product development programs and their stages of development.

Tivantinib (ARQ 197): Lead Product Candidate

We are developing our lead product candidate, tivantinib, with our partner, Daiichi Sankyo, in the U.S., Europe, South America and the rest of the world, excluding Japan and certain other Asian countries, where we have licensed commercial rights to Kyowa Hakko Kirin. Tivantinib is an inhibitor of MET that does not compete with adenosine triphosphate ("ATP"). We believe that MET is a promising target for cancer therapy based on its multiple roles in cancerous cell proliferation, tumor spread, new blood vessel formation and resistance to certain drug therapies.

The most advanced indication under investigation is HCC. Earlier-stage single agent and combination therapy trials with tivantinib and other anti-cancer agents previously conducted by us and our industry partners and academic and government collaborators may provide data to support advanced-stage trials in additional indications.

Liver Cancer (Hepatocellular carcinoma or HCC)

On January 31, 2013, we announced that the first patient had been enrolled in the pivotal Phase 3 METIV-HCC trial of tivantinib for patients diagnosed with HCC who have received one or two prior systemic anti-cancer therapies. The METIV-HCC trial is a randomized, double-blind, controlled study of previously treated patients with MET-diagnostic-high inoperable HCC who will receive tivantinib as a single agent or placebo. The primary endpoint is OS, and the secondary endpoint is PFS. A dose reduction in the METIV-HCC trial from 240 mg twice daily ("BID") tablets to 120 mg BID tablets was implemented in September 2013 following the observation of a higher incidence of neutropenia in the initial phase of the METIV-HCC trial than was observed in the Phase 2 trial in the same patient population, which employed a 240 mg BID capsule dose, and in other trials with tivantinib. Certain enhanced patient monitoring procedures were temporarily instituted to confirm the safety profile of the lower dose. Following a review of data analyses from a predefined number of patients who received this lower dose, the Data Monitoring Committee ("DMC") of the METIV-HCC trial recommended in January 2014 continuation of the ongoing trial, with patients receiving the lower dose. Pharmacokinetic analyses among a predefined number of

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patients treated with the 120 mg BID tablet dose showed that the incidence of neutropenia was reduced with this lower dose and that the plasma exposure of the lower dose was comparable to the 240 mg BID capsule dose in the Phase 2 trial with similar medians and overlapping ranges.

We completed patient accrual in the METIV-HCC trial in December 2015 and have randomized over 300 patients at more than 100 clinical sites worldwide. We anticipate that a planned interim assessment for the trial, which is triggered when 60 percent of events occur, will take place by early in the second quarter of 2016. This trial is being conducted under a Special Protocol Assessment ("SPA") agreement with the FDA. An SPA is an agreement establishing the design, endpoints and statistical analysis of a clinical trial intended to provide the necessary data, depending on the outcome of the trial, which could support the filing of a New Drug Application ("NDA"). Because the METIV-HCC trial enrolled patients with MET-diagnostic high HCC whom we believe are likely to benefit from treatment with tivantinib, the SPA also includes an immunohistochemistry ("IHC")-based diagnostic test from a third-party provider in collaboration with Daiichi Sankyo and us. This test is being used to identify the MET status of patients in the trial and is being developed as a companion diagnostic test ("CDx") for use with tivantinib commercially should the drug be approved. Our collaborator for this companion diagnostic test and our collaborator for a second test will each need to submit a Premarket Approval ("PMA") application to FDA that establishes the predictive value of the respective CDx in connection with the registration and commercialization of tivantinib in the U.S., and additional regulatory applications will need to be made in other geographic areas.

The METIV-HCC trial builds upon the results of a randomized, double-blind, placebo controlled, Phase 2 trial in HCC initially announced in January 2012 demonstrating that treatment with tivantinib as single agent therapy produced a statistically significant 56 percent improvement in the primary endpoint of Time To Progression, or TTP, in the ITT population of previously treated patients. The 107 patients in this trial had unresectable HCC and had experienced disease progression after first-line therapy or were unable to tolerate such therapy. TTP was defined as the time from patient randomization until objective tumor progression using RECIST (Response Evaluation Criteria in Solid Tumors) 1.1 criteria evaluated by central radiological review.

Additional data from this trial were presented at the ASCO meeting in June 2012. Patients with higher levels of MET in the Phase 2 trial who were treated with tivantinib experienced pronounced, statistically significant improvements in TTP, PFS and OS. In this sub-group of 37 patients, median OS in the tivantinib arm (22 patients) was 7.2 months, and median OS in the placebo arm (15 patients) was 3.8 months (HR=0.38; log rank p-value=0.01); median TTP in the tivantinib arm was 2.9 months, and median TTP in the placebo arm was 1.5 months (HR=0.43, log rank p-value=0.03); median PFS in the tivantinib arm was 2.4 months, and median PFS in the placebo arm was 1.5 months (HR=0.45, log rank p-value=0.02).

At the start of the Phase 2 trial, patients were randomized to receive tivantinib in 360 milligram capsules BID or placebo. Due to the rate of neutropenia, the tivantinib dose was reduced to 240 milligram capsules BID for all patients. Adverse events were reported at similar rates in the treatment and placebo arms, except for a higher incidence of fatigue and hematologic events, including neutropenia and anemia, in tivantinib-treated patients. The incidence of these types of events declined following dose reduction. We continue to monitor the safety profile of tivantinib in patients with HCC, among whom underlying cirrhosis and compromised liver function may limit the body's ability to process tivantinib and thereby increase such events.

In January 2016, preliminary analyses of baseline data from the METIV-HCC trial and biomarker data collected from the Phase 2 trial were presented at the ASCO GI meeting. Analyses of plasma biomarkers from the Phase 2 study support the prognostic and predictive role of MET status in this previously reported trial. The presentation also noted that biopsies were more likely to be categorized as MET-high when taken after sorafenib therapy than before therapy. Preliminary data presented on the METIV-HCC trial was consistent with the Phase 2 findings. Approximately half of the more than 1,000 samples tested were MET-high. A higher MET-high rate (73%) was observed in those samples from patients analyzed following first-line treatment with sorafenib while a lower MET-high rate (39%) was observed in those samples analyzed prior to sorafenib treatment. An additional analysis found that 70% (50 out of 71) of patients who tested MET-low before sorafenib treatment became MET-high after receiving sorafenib.

In addition to METIV-HCC, a second Phase 3 clinical trial in HCC with tivantinib known as JET-HCC is ongoing in Japan. On February 4, 2014, Kyowa Hakko Kirin, our partner for the development

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of tivantinib in Asian territories, announced the initiation of this trial in Japanese patients with MET diagnostic-high, inoperable HCC treated with one prior therapy with sorafenib. The trial is a randomized, double-blind placebo-controlled study to compare PFS in patients treated with tivantinib with those treated with placebo. Kyowa Hakko Kirin plans to enroll approximately 160 patients in this study. Kyowa Hakko Kirin is also using an IHC-based test for the JET-HCC trial to enable the identification of the MET status of patients to be enrolled in this trial. Because the JET-HCC trial is enrolling only patients who are MET-diagnostic high, Kyowa Hakko Kirin and its collaborators who are developing a CDx for the Japanese market will need to apply for regulatory approval of the CDx with the Pharmaceuticals and Medical Devices Agency ("PMDA") and potentially other regulatory authorities in the Asian territory in connection with the approval of tivantinib there.

Non-small cell lung cancer

MARQUEE Phase 3 Trial

On September 30, 2013 at the European Cancer Congress, we and our partner Daiichi Sankyo, presented final data from MARQUEE, a randomized, double-blind, controlled pivotal Phase 3 trial to evaluate tivantinib in combination with erlotinib, an approved anti-cancer agent, in previously treated patients with locally advanced or metastatic, non-squamous non-small cell lung cancer ("NSCLC"). In the ITT population of 1,048 patients, median OS in the treatment arm of tivantinib plus erlotinib was 8.5 months versus 7.8 months in the erlotinib only control arm (hazard ratio = 0.98, p = 0.81), while median PFS was 3.6 months in the treatment arm versus 1.9 months in the control arm (hazard ratio = 0.74, p = 0.001). Overall response rate ("ORR") was 10.3 percent in the treatment arm compared to 6.5 percent in the control arm.

Final data demonstrated clinical benefits in patients whose tumors expressed high levels of MET protein. The overall safety profile among patients receiving tivantinib and erlotinib was consistent with findings at a previous planned interim analysis. At that time, the independent DMC of MARQUEE recommended that the study be discontinued early after concluding that the study would not meet its primary endpoint of improved OS. Although the interim analysis showed a statistically significant improvement in PFS in the ITT population, this benefit did not carry over to OS. No safety concerns were identified by the DMC during this analysis.

In November 2015 additional data from an exploratory sub-analysis of the MARQUEE trial with tivantinib in NSCLC in patients with advanced disease and epidermal growth factor receptor ("EGFR") mutations were presented. The data showed tivantinib, when added to erlotinib, increased progression-free survival to 13 months compared to 7.5 months in the erlotinib plus placebo arm. The sub-analysis included 109 patients of which 56 were in the combination tivantinib plus erlotinib arm of the trial (hazard ratio = 0.49, p = 0.0016).

We incorporated into the SPA for the MARQUEE trial a broad genotyping and biomarker program designed to expand what is an evolving understanding of the biology of MET and of tivantinib. In addition, we continue to investigate and add to our understanding of the profile of tivantinib and its metabolites to better characterize their scope and effect as anti-cancer agents. These efforts include the generation and interpretation of clinical and pre-clinical data by us, our partners and third parties suggesting potential anti-cancer activity in addition to MET inhibition. In this regard, certain preclinical experiments have demonstrated that tivantinib has activity against cells that harbor little or undetectable levels of MET, suggesting an additional mechanism or mechanisms in those settings, including mitotic arrest, or the possible involvement of cellular mechanisms and signaling pathways activated by MET. Although it is unclear what effect such activity may have in clinical settings, data from randomized, controlled clinical trials demonstrate that tivantinib has greater benefit for patients who have tested positive for high MET status while showing less activity in MET low populations. As a result, we believe that MET status remains the most significant biomarker for further development of the drug, and we, our partners, and academic collaborators intend to focus on such patient populations in a number of tumor types. Further clinical and pre-clinical findings may inform our decisions regarding potential additional clinical settings and patient populations for tivantinib.

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ATTENTION Phase 3 Trial

ATTENTION was a Phase 3 randomized, double-blind, controlled pivotal trial conducted in non-squamous NSCLC patients with wild-type EGFR in Asia by Kyowa Hakko Kirin. Recruitment of new patients in ATTENTION was permanently suspended in October 2012 based on a recommendation by the trial's Safety Review Committee following an observed imbalance in interstitial lung disease ("ILD") cases as a drug-related adverse event. Patients already recruited were allowed to continue in the trial after being re-consented. The safety profile observed in ATTENTION was in line with what was previously observed in other NSCLC trials with tivantinib, with the exception of ILD, which is a known adverse event observed in Japanese patients treated with EGFR inhibitors such as erlotinib. In the ITT population, OS favored the treatment arm of tivantinib plus erlotinib compared to the erlotinib only control arm, but it was not statistically significant. PFS and overall response rate ("ORR") results also showed a trend toward improvement favoring the treatment arm.

KRAS Mutation-Positive Phase 2 Trial

Findings presented at the 2014 Chicago Symposium on Multidisciplinary Thoracic Oncology from a Phase 2 trial of tivantinib in combination with erlotinib in KRAS-mutant NSCLC patients showed that this combination did not improve PFS, the primary endpoint, or OS in these patients when compared to standard chemotherapy. These findings confirm observations from a large cohort of patients from the MARQUEE trial, and consequently we do not plan to pursue future development in KRAS-mutant NSCLC.

Colorectal Cancer Trial

On January 11, 2013, we announced the top-line results of a randomized Phase 2 signal generation trial of tivantinib used in combination with irinotecan and cetuximab in patients with refractory or relapsed colorectal cancer ("CRC"). The trial did not meet its primary endpoint of PFS. The PFS and ORR results obtained in both the control arm and the treatment arm were longer than expected compared to previously published historical norms. Additional data and analyses from this trial were presented at the ASCO Annual Meeting in June 2013, showing that the median PFS in the treatment arm was 8.3 months, compared with 7.3 months in the control arm. Median OS in the treatment arm was 19.8 months, compared with 16.9 months in the control arm. ORR in the treatment arm was 45 percent versus 33 percent in the control arm. Adverse events were reported at similar rates in the treatment and control arms of the trial, except for increased neutropenia observed in the treatment arm, with no discontinuations of treatment for this reason. Tivantinib was generally well tolerated in combination with the approved doses of irinotecan and cetuximab studied in this trial.

The patients enrolled in this trial (U.S. n=67; Russia n=39; Western Europe n=16) had unresectable CRC, progressed following first-line treatment and had tumors expressing the wild-type form of the KRAS gene. The primary objective of the trial was to assess the contribution of tivantinib to the irinotecan and cetuximab treatment regimen. The primary endpoint of the study was PFS, and secondary objectives included OS and ORR. Patients were randomized to receive tivantinib, 360 milligrams twice daily, plus irinotecan and cetuximab, or placebo plus irinotecan and cetuximab. The trial was conducted by Daiichi Sankyo.

In July 2015, data was presented at the European Society for Medical Oncology World Congress on Gastrointestinal Cancer ("ESMO GI") from an ongoing investigator-initiated Phase 2 clinical trial with tivantinib in combination with cetuximab in patients with MET-High, KRAS wild-type metastatic colorectal cancer ("CRC") NCT01892527 who recently progressed on anti-EGFR antibodies. The primary endpoint of the trial is ORR in the biomarker defined population. Secondary study endpoints are progression-free survival ("PFS"), overall survival ("OS") and safety. The ESMO World GI presentation included data from 21 patients enrolled in Stage 1 of this trial. One patient, still on therapy, experienced a complete response ("CR") and 2 patients experienced durable confirmed partial responses ("PRs"). Stable disease was observed in 8 patients, including 2 short duration PRs, for an overall Disease Control Rate (CR + PR + SD) of 52.4%.

National Institutes of Health Program

The National Cancer Institute ("NCI"), through its Cancer Therapy Evaluation Program ("CTEP"), selected tivantinib for study under a Cooperative Research and Development Agreement ("CRADA"). The

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CRADA provided financial support for a number of independent investigator-sponsored clinical trials that examined the safety and spectrum of tivantinib's anti-tumor activity, including new potential indications based on the profile of tivantinib and the role of MET in different diseases. Additionally, it provided support for pre-clinical studies designed to expand the basic understanding and development of tivantinib, including exploration of its potential activity beyond MET inhibition.

Tivantinib was studied as a single agent and in combination with other anti-cancer therapies in a number of CTEP-sponsored trials. On November 10, 2014, we announced positive top-line results from a randomized, double-blind, placebo-controlled Phase 2 CRADA clinical trial of tivantinib as a single agent in metastatic prostate cancer. In this trial, 78 patients were randomized 2 to 1 to receive either tivantinib as a single agent or placebo. Patients were men with asymptomatic or minimally symptomatic metastatic, castration-resistant, chemotherapy-naïve prostate cancer. The study was designed to detect an improvement in the median PFS from 3 months to 6 months with tivantinib treatment. During a pre-planned analysis, it was found that the trial met its primary endpoint of improving median progression-free survival (PFS) with tivantinib alone as compared to placebo. The results were highly statistically significant, and safety data were consistent with those observed in other trials of tivantinib. The proposed sample of 78 patients (26 in the placebo arm, 52 in the tivantinib arm) provides 90 percent power to detect an improvement from 3 months median PFS with placebo to a median PFS of at least 6 months with tivantinib. This design is based on the assumption of having 58 cumulative events (progressions or deaths). These results were presented at ASCO GU in 2015, and a manuscript will be published in the future.

Other CTEP-sponsored trials with tivantinib included a Phase 2 single agent trial in malignant mesothelioma and Phase 2 combination therapy trials in kidney cancer (with or without erlotinib) and in head and neck cancer (with or without cetuximab, randomized) and Phase 1 trials with tivantinib as a single agent in pediatric tumors and as part of combination therapies with bevacizumab, pazopanib, topotecan and temsirolimus. None of these trials met their primary endpoints.

Earlier Clinical Stage Product Development Programs

Our proprietary clinical-stage pipeline consists of four drug candidates, all of which are in targeted, biomarker-defined patient populations, making ArQule a potential early leader in precision medicine. This pipeline includes four wholly owned compounds:

- ARQ 092, designed to inhibit the AKT serine/threonine kinase inhibitor;

- ARQ 751, a next-generation inhibitor of AKT;

- ARQ 087, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor ("FGFR") family; and

- ARQ 761, a Beta lapachone analog being evaluated as a promoter of NQO1-mediated programmed cancer cell necrosis.

Phase 1a dose escalation trials were completed with ARQ 092, ARQ 087 and ARQ 761 in 2014. Data from these trials were presented at the 26th EORTC-NCI-AACR Symposium held in November 2014. Clinical development of these products has now advanced into Phase 1b/2 testing. Specific tumor types and biomarkers have been identified to guide this new phase of clinical testing based on analyses of anti-cancer activity observed in Phase 1a, preclinical findings and scientific literature.

Our strategy across these programs is to generate additional clinical data that will inform decisions regarding the possible initiation of advanced clinical trials with one or more of them either independently or on a partnered basis. In addition, we may seek areas of potential therapeutic synergy among these product candidates and other anti-cancer therapies. A summary of these programs follows.

AKT Program: Cancer

The AKT signaling pathway is abnormally regulated in a wide range of tumor types and affects a variety of cellular functions, including survival, proliferation and protein synthesis. The AKT pathway has emerged as a target of potential therapeutic relevance and has been linked to a variety of cancers as well as to select non-oncology indications.

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We are developing two compounds in this program: ARQ 092, in Phase 1b clinical testing, and ARQ 751, a next-generation compound that received Investigational New Drug ("IND") approval in late 2015. Both of these orally available agents have demonstrated potent inhibition of tumor growth and downstream AKT signaling in vivo in tumors. Preliminary signs of single agent activity in subjects with advanced tumors, as well as reductions in the expression levels of relevant biomarkers, have been observed with ARQ 092 in Phase 1b. The Phase 1b expansion cohort with ARQ 092 includes patients with endometrial cancer, lymphoma and other tumor types harboring either AKT or PI3K mutations. The endometrial cancer and lymphomas cohorts are fully enrolled while the cohort enriched with AKT or PI3K mutations is enrolling. Thus far in this enriched cohort of the trial, we have observed five patients with confirmed responses, four of whom have the same AKT 1 mutation which occurs in Proteus syndrome described below. AKT 751 is scheduled to enter the clinic in the first half of 2016 in cancers harboring the AKT1 and PI3K mutations.

AKT Program: Non-Oncology, Rare Diseases

We are collaborating with the National Human Genome Research Institute ("NHGRI") of the NIH on a clinical trial investigating ARQ 092 as a potential treatment for Proteus syndrome, a rare overgrowth disorder caused by a mutation in the AKT 1 gene. This collaboration provides the opportunity to evaluate ARQ 092 in a rare genetic disorder with no approved therapy. Results from pre-clinical research presented by the NIH team at the 2014 meeting of the American Society of Human Genetics demonstrate that treatment with ARQ 092 caused a rapid shutdown of AKT signaling and a reduction in the viability of Proteus syndrome cells taken from patients compared to untreated diseased cells. These results were further substantiated by a paper published by the NIH in Nature Scientific Reports in December 2015. These findings represented pre-clinical proof-of-concept for the advancement of ARQ 092 into clinical testing in this indication. The NHGRI of the NIH opened enrollment for the first-ever clinical trial for Proteus syndrome with ARQ 092 in November 2015. The first cohort, consisting of three patients, completed dosing in January 2016. Other non-oncology indications in which AKT plays a potentially significant role include PROS (PI3K Overgrowth Syndromes) and Cowden syndrome, both of which are characterized by non-cancerous overgrowths of tissue. We plan to examine pre-clinically the potential therapeutic impact of ARQ 092 in these indications.

FGFR Program: Cancer

The FGFR pathway is disrupted in several ways in human cancer, thus providing numerous therapeutic targets for an inhibitor of this pathway. ARQ 087, an orally bioavailable compound, is a dual kinase inhibitor that binds to the inactive form of FGFR1 and FGFR2 and potently inhibits the active forms of FGFR1 and FGFR2. ARQ 087 has demonstrated inhibition of tumor growth and downstream signaling in vivo in tumors whose growth is driven by these targets.

We are currently conducting a Phase1/2 trial with ARQ 087. Signals of single agent activity with this compound were observed in Phase 1a and Phase 1b settings in patients with FGFR2 fusions and amplified FGFR1. Additionally, increased FGFR levels were identified as a potential surrogate marker in the Phase 1a trial. In our studies with ARQ 087 to date, FGFR2 dysregulation correlates with efficacy. The translation of results from FGFR2 preclinical models into clinical efficacy in patients with FGFR2 fusion driven cholangiocarcinoma is encouraging and shaped the ongoing Phase 2 portion of the clinical trial.

The Phase 2 portion of the Phase 1 study includes patients with intrahepatic cholangiocarcinoma ("iCCA") with FGFR translocations, amplification and mutations. iCCA (bile duct cancer) is a rare and difficult to treat cancer that occurs in the small, tube-like bile ducts within the liver that carry bile to the gallbladder. Current treatment is based on the patient's stage of the cancer when diagnosed and include resection, chemoradiation and systemic chemotherapy. The Phase 2 portion of the trial is currently enrolling in the United States and Italy, and its end point is overall response rate.

NQO1 Program: Cancer

We are collaborating with the University of Texas Southwestern Medical Center on the clinical development of ARQ 761, an intravenously administered analogue of Beta-lapachone, a naturally occurring substance. ARQ 761 is a pro-drug of ARQ 501, which has demonstrated in vitro activity against a wide range of solid tumors. Phase 1a testing with ARQ 761 identified anti-cancer activity as measured by tumor

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responses that occurred exclusively in a portion of the patient population with high levels of NQO1, the mechanistic target of the compound. Consequently, Phase 1b expansion cohorts for ARQ 761 will focus on patients whose tumors have high levels of NQO1. In 2015, a Phase 1b/2 trial was initiated with ARQ 761 in pancreatic cancer.

CORPORATE PARTNERSHIPS

Daiichi Sankyo Co., Ltd.

Tivantinib Agreement

On December 18, 2008, we entered into a license, co-development and co-commercialization agreement (the "Agreement") with Daiichi Sankyo to conduct research, clinical trials and the commercialization of tivantinib in human cancer indications in the U.S., Europe, South America and the rest of the world, excluding Japan, China (including Hong Kong), South Korea and Taiwan, where Kyowa Hakko Kirin has exclusive rights for development and commercialization. On a combined basis, our agreements with Daiichi Sankyo and Kyowa Hakko Kirin (see Kyowa Hakko Kirin Co., Ltd. below), include total upfront payments of $90 million and provide for total upfront and potential milestone payments in excess of $750 million, partially offset by our share of Daiichi Sankyo Phase 3 tivantinib costs.

The Agreement provides for a $60 million cash upfront payment from Daiichi Sankyo to us, which we received in December 2008. In addition, it includes an additional $560 million in potential development and sales milestone payments. The dosing of the first patient in a Phase 3 clinical trial of tivantinib in NSCLC, announced in January 2011, triggered the payment of a $25 million development milestone from Daiichi Sankyo that was received in February 2011. We and Daiichi Sankyo will co-develop and share equally the costs of Phase 2 and Phase 3 clinical studies, with our share of Phase 3 costs payable solely from milestone and royalty payments from Daiichi Sankyo. Future milestone and royalty payments, if any, will be offset by our share of the Phase 3 costs incurred by Daiichi Sankyo. As of December 31, 2015 our portion of these costs was $61.4 million. Daiichi Sankyo has the right to offset future milestone and royalty payments by this amount. On January 31, 2013, we announced that the first patient had been enrolled in the pivotal Phase 3 METIV trial of tivantinib, entitling us to a $15 million milestone. We did not receive any net cash proceeds from this milestone as it was netted against our cumulative share of Phase 3 collaboration costs in excess of milestones received.

On November 3, 2015, the Company announced that it had exercised its option with Daiichi Sankyo to co-commercialize tivantinib in the United States (the "Co-Commercialization Option"), pursuant to the Agreement. Subject to the receipt of regulatory approvals, the first commercial indication for tivantinib under the Co-Commercialization Option is anticipated to be second line HCC. The parties have a prescribed period to conclude a co-commercialization agreement in accordance with the terms of the Agreement which is expected to occur in the late first quarter or early second quarter of 2016. If the METIV-HCC trial is successful, and tivantinib is approved in second line HCC, the Agreement provides that the Company will receive a total of $55 million in milestone payments for the official acceptance of drug approval applications by FDA and the European Medicines Agency ("EMA") in this first indication, plus an additional $100 million in combined milestones tied to receipt of commercialization regulatory approval by the FDA and the first commercial sale in the UK, Germany, France, Italy or Spain. These milestones, totaling $155 million, will be partially offset by Phase 3 costs owed to Daiichi Sankyo by the Company which the Company expects to total approximately $75 million to $85 million at the time of approval in the US or EU. The Agreement also provides that the Company will receive tiered double digit royalties on net sales of tivantinib throughout the territory. Given the anticipated commercial market for second line HCC, the Company expects to earn royalties on net sales for this indication at the baseline contractual rate of 20 percent.

The duration and termination of the agreement is tied to future events. Unless earlier terminated due to breach, insolvency or upon 90 days' notice if prior to Phase 3 clinical trials or 180 days' notice if on or after the beginning of Phase 3 clinical trials by Daiichi Sankyo, the agreement shall continue until the later of (i) such time as Daiichi Sankyo is no longer developing at least one licensed product or (ii) if Daiichi Sankyo has commercialized a licensed product or products, such time as all royalty terms for all licensed

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products have ended. The royalty term, on a country-by country basis for a product, ends as of the later of (i) the expiration of the last valid claim under a patent covering the manufacture, use, or sale of a licensed product or (ii) a certain number of years from the date of the commercial sale of the licensed product in such country.

We believe this alliance with Daiichi Sankyo will help realize the therapeutic potential of tivantinib and define its utility as monotherapy and as part of combination therapy in multiple cancer indications. It also may allow us to establish a founding commercial presence in the U.S. that will complement Daiichi Sankyo's primary commercialization effort for tivantinib.

Kyowa Hakko Kirin Co., Ltd

On April 27, 2007, we announced an exclusive license agreement with Kyowa Hakko Kirin to develop and commercialize tivantinib in Japan and parts of Asia. The agreement includes $123 million in upfront and potential development milestone payments from Kyowa Hakko Kirin to ArQule, including $30 million in upfront licensing payments that we received in 2007. In addition to the upfront and possible development and regulatory milestone payments totaling $123 million, the Company will be eligible for future milestone payments based on the achievement of certain levels of net sales. To date, we have received $48 million in upfront and milestones payments. The Company will recognize the payments, if any, as revenue in accordance with its revenue recognition policies. As of December 31, 2015, the Company has not recognized any revenue from these sales milestone payments, and there can be no assurance that it will do so in the future.

The duration and termination of the agreement is tied to future events. Unless earlier terminated due to breach, insolvency or upon 90 days' notice by Kyowa Hakko Kirin, the agreement terminates on the date that the last royalty term expires in all countries in the territory. The royalty term ends as of the later of (i) the expiration of the last pending patent application or expiration of the patent in the country covering the manufacture, use, or sale of a licensed product or (ii) a certain number of years from the date of the commercial launch in such country of such license product.

Upon commercialization, ArQule will receive tiered royalties in the mid-teen to low-twenty percent range from Kyowa Hakko Kirin on net sales of tivantinib. Kyowa Hakko Kirin will be responsible for clinical development costs and commercialization of the compound in the Asian territory, consisting of Japan, China (including Hong Kong), South Korea and Taiwan.

Beryllium Development Corp.

In May 2015, we entered into a collaborative research and development agreement with Beryllium Discovery Corp ("Beryllium"). Pursuant to the agreement between the parties, we will jointly focus on the identification and preclinical development of inhibitors of PD-1 and PDL-1. We and Beryllium will each be responsible for our respective internal and outsourcing costs during pre-clinical development. Following lead optimization of any potential candidates, we and Beryllium will jointly decide whether to advance compounds into GLP/toxicology and clinical testing, initially on a shared cost basis, provided that we will have the right to advance compounds on our own should Beryllium vote against such advancement. The agreement also provides that we will be responsible for clinical development and commercialization of product candidates that are not out-licensed. Beryllium will have the right to participate financially throughout the program but will also have the option to opt out at certain times and receive a royalty. The agreement will terminate after the last payment obligation is satisfied, or prior to that upon 60-days' notice by either party.

BUSINESS STRATEGY

Our strategy is to build a fully integrated, commercial-stage biotechnology company that discovers, develops, and commercializes safe, innovative, and effective small molecule drugs in the fields of oncology and rare diseases. Specifically, we intend to accomplish this through the following activities:

- implementation of a clinical development program across multiple tumor types with our lead product candidate, tivantinib, as monotherapy and in combination with other targeted therapies or cytotoxic agents;

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- continued refinement and prioritization of our clinical program with tivantinib based on our expanding knowledge of MET inhibition, the mechanism of action of tivantinib, and emerging data from clinical trials;

- focus on precision medicine approaches with our proprietary pipeline and tivantinib to define patient populations with the highest likelihood of benefitting from our therapies based on our insights into functional biomarkers;

- expansion into rare disease indications to target areas of high unmet need while creating the opportunity for accelerated development;

- portfolio prioritization based on the completion of ongoing Phase 1b and Phase 2 trials for ARQ 092 and ARQ 087 to select the most promising indications for further development, including potential fast-to-market settings, thereby focusing our clinical investments in areas of greatest potential return, mitigating overall development risk and maximizing market opportunities;

- advancement of promising pre-clinical programs;

- evaluation of our proprietary library of compounds to identify potential candidates for pre-clinical development;

- pursuit of partnerships or alliances with pharmaceutical and biotechnology companies, as well as research institutions and independent investigators, to offset spending, balance risk, and gain expertise;

- maintenance and expansion of our portfolio of patents, know-how and trade secrets; and

- commercialization or co-commercialization of our drugs in the U.S.

2016 Operational Goals

During 2016, we plan to pursue the clinical development of our product candidates and to advance our discovery activities principally in the following ways:

Tivantinib / MET Program

- complete the planned interim analysis of the Phase 3 METIV-HCC trial and determine next steps; and

- develop with our partner, Daiichi Sankyo, a strategy for expansion of the tivantinib franchise.

Pipeline Programs: ARQ 092 and ARQ 087

- complete patient enrollment of Phase 1b expansion cohort with ARQ 092;

- evaluate next steps for ARQ 092 in cancers with AKT1 and PI3K mutations based on Phase 1b results;

- complete Phase 1 trial with ARQ 092 in Proteus syndrome;

- evaluate next steps for ARQ 092 in Proteus syndrome based on Phase 1 results;

- complete patient enrollment of Phase 1b portion of ARQ 087 trial and complete Phase 2 portion of trial in iCCA;

- evaluate next steps for ARQ 087 in iCCA and other tumors based on results from the Phase 2 and phase 1b portion of ongoing trial, respectively;

- complete patient enrollment of Phase 1b expansion cohort with ARQ 761;

- begin a Phase 1 trial in oncology in patients with AKT1 and PI3K mutations for ARQ 751, a next-generation AKT inhibitor; and

- identify potential fast-to-market strategies for pipeline candidates.

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Discovery

- advance the development of defined molecules through new and ongoing academic collaborations; and

- interrogate our library of compounds to discover new pre-clinical candidates in areas of high unmet need.

Development and Commercialization Strategy

Our development and commercialization strategy includes the following components:

Grow organically and through business development. We plan to grow both organically and through business development activities that take advantage of our product and technology assets. Organic growth will be based on our advancement of internally defined product candidates from pre-clinical through clinical development. These candidates will be based upon scientific platforms within the Company and directed toward targets with validated roles in oncogenic processes and in other therapeutic areas like rare diseases.

Simultaneously, we will consider a broad range of business development activities potentially encompassing product and technology acquisitions, licensing agreements and corporate combinations that would help expand the overall scope of product development and potentially accelerate the implementation of a commercialization infrastructure. Such activities offer the opportunity to leverage the capabilities of a potential partner with resources complementary to ours in drug discovery and development. We may also continue to invest in technology and personnel to enhance or expand our capabilities in drug discovery.

Focus on cancer, a market with a large unmet need. Cancer is the second most common cause of death in the U.S. According to the American Cancer Society, in 2016 approximately 595,000 cancer-related deaths were projected to occur and more than 1.6 million new cases of cancer were projected to be diagnosed in the U.S. Demographic trends and improved screening are expected to increase the rate of cancer diagnoses, as approximately 86 percent of cancers occur in the over-50 year old population.

Medical therapy for cancer has historically included surgery, cytotoxic (poisonous to cells) chemotherapy and radiation. While chemotherapies have evolved, many are still harmful to all rapidly dividing cells. More recently, a number of alternative therapies that are target-specific have been introduced. We believe that targeted approaches to treating cancer, such as those we are pursuing, have the potential to be more selective for cancer cells than traditional chemotherapies.

Cancer compounds are eligible for potential accelerated regulatory approval, and we will pursue opportunities for such approval as appropriate. Once on the market, with supportive data the agents may be approved for additional indications.

Our most advanced indication, HCC, represents more than 90 percent of primary liver cancer, which is the sixth most common cancer globally, accounting for seven percent of all cancers, and the second leading cause of cancer-related deaths, with 756,000 cases. The American Cancer Society estimates more than 27,000 liver cancer-related deaths and more than 39,000 new cases of liver cancer diagnosis will occur in the U.S. during 2016. Eastern Asia has the highest incidence and mortality rates from the disease.

Expand programs in rare diseases. Our collaborators at the NIH have initiated a Phase 1 clinical trial of ARQ 092 in Proteus syndrome, a non-oncology rare disease. We have identified two additional rare diseases, PROS syndromes and Cowden syndrome, both of which are characterized by non-cancerous overgrowth of tissues, and we plan to examine pre-clinically the potential therapeutic impact of ARQ 092 in these indications.

Pursue a personalized medicine approach. Our personalized approach to drug development is based on our knowledge of functional biomarkers, which are measurable indicators of biological processes and may predict an individual’s response to therapies. In this way, we are able to define patient populations who may respond favorable to our products.

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Mine our library of proprietary compounds. We have built an extensive library of proprietary compounds with the potential to target multiple kinases in oncology and other therapeutic areas. We will seek to support our proprietary drug discovery efforts with these compounds through additional collaborative research programs as well as through our own targeted internal activities in multiple therapeutic areas. Our pre-clinical programs are directed toward multiple therapeutic targets, and several of these programs are in the late pre-clinical stage.

Benefit from the resources and strengths of collaborators. We maintain collaborative relationships with both corporate and institutional partners to advance and support the development of our products. For example, in April 2007, we announced that we entered into an exclusive license agreement with Kyowa Hakko Kirin to develop and commercialize tivantinib in Japan and parts of Asia, and in November 2008, we entered into a strategic relationship with Daiichi Sankyo to develop and commercialize tivantinib in those areas of the world not covered by the Kyowa Hakko Kirin agreement. In 2010, the National Cancer Institute ("NCI") selected tivantinib for evaluation in multiple independent investigator-sponsored clinical trials through its Cancer Therapy Evaluation Program ("CTEP"). In 2014, we entered into an agreement with the National Human Genome Research Institute for the clinical development of ARQ 092 in Proteus syndrome. We benefit from the resources and expertise of these partners, and we intend to pursue future partnership arrangements as appropriate when the resources and capabilities of a potential partner complement our strengths in drug discovery and development.

PATENTS AND PROPRIETARY RIGHTS

We rely principally on patent and trade secret protection for our intellectual property, both in the U.S. and other countries. While many patent applications have been filed in the U.S., the European Union ("E.U.") and other foreign countries with respect to our drug candidates, many of these have not yet been issued or allowed. The patent positions of companies in the biotechnology industry and the pharmaceutical industry are highly uncertain and involve complex legal and factual questions. Therefore, we cannot predict the breadth of claims, if any, that may be allowed under any of our patent applications, or the enforceability of any of our issued patents.

Patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends on the type of patent, the scope of its coverage and the availability of legal remedies in the country.

As and when needed to support our current or future research and development programs, we may from time to time obtain rights under patents and other intellectual property owned by other parties through permanent or limited duration licenses or assignments of relevant intellectual property. These may include exclusive and nonexclusive licenses from medical and academic institutions, and industry sources as well as generally available commercial licenses. For our current clinical and research programs, we are not a party to any material intellectual property agreement under which we could lose access to a technology necessary to continue research and development of our products if we failed to fulfill our obligations thereunder. We anticipate that we will continue to seek intellectual property rights from external sources where the applicable technology complements our research and development efforts.

For our MET program, we have three issued patents in the U.S. covering the composition of matter of tivantinib and its derivatives, as well as pharmaceutical compositions and methods of use thereof. The U.S. Patent and Trademark Office has determined that the term of the initial patent will be adjusted beyond its normal expiration date of February 2026 to March 2029 (and in addition, there is the possibility of a patent term extension based upon regulatory review) and the second patent will be adjusted beyond its normal expiration date of February 2026 to December 2026. We have issued patents from the Republic of Korea, the Republic of Singapore, Australia, the People's Republic of China, the E.U., Japan, Israel, Mexico, New Zealand, the Philippines, Russia, Canada, Hong Kong, Indonesia, India, Malaysia, Norway and South Africa for composition of matter covering tivantinib. We understand that these patents will expire in February 2026. We also have pending U.S., E.U. and other foreign applications covering the composition of matter and pharmaceutical compositions containing tivantinib and/or its derivatives, as well as therapeutic uses thereof in the treatment of cancer and other diseases. Furthermore, we have two issued patents in the U.S. relating to the synthesis of tivantinib, an intermediate in the preparation of tivantinib and polymorphs

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of tivantinib. The U.S. Patent and Trademark Office has determined that the term of the initial patent will be adjusted beyond its normal expiration date of December 2030 to February 2031. Additionally, we have an issued U.S. patent relating to formulations of tivantinib, which the U.S. Patent and Trademark Office has determined will be adjusted beyond its normal expiration date of July 2032 to September 2033.

With respect to our AKT and FGFR programs, we have issued patents and pending patent applications in the U.S., the E.U. and other foreign jurisdictions. For our AKT program, we have four issued patents in the U.S. covering the composition of matter for our lead AKT compounds. The expiration dates of these patents range from December 2031 to June 2032. We also have granted patents in the E.U., Australia, Hong Kong, Israel, Japan, Mexico, New Zealand, the Philippines, the Republic of Singapore and South Africa. For our FGFR program, we have one issued patent in the U.S. covering the composition of matter for our lead FGFR compounds. This patent will be adjusted beyond its normal expiration date of December 2029 to January 2031. We also have granted patents in the E.U., Australia, the People's Republic of China, Israel, Japan, Taiwan, the Philippines, Mexico and South Africa. Furthermore, our discovery of small molecule kinase inhibitors has led us to file numerous composition of matter patent applications in various countries.

ARQ 761 is being investigated as a potential NQO1 inhibitor. We have an issued patent in the U.S. covering the composition of matter of this compound, pharmaceutical compositions containing this compound, and the therapeutic uses of this compound in the treatment of cancer. The U.S. Patent and Trademark Office has determined that the term of the patent will be adjusted beyond its normal expiration date of April 2028 to December 2028. We also have issued patents in the E.U., Australia, the People's Republic of China, Mexico and Taiwan covering the composition of matter of this compound.

COMPETITION

The pharmaceutical and biotechnology industries are highly competitive and characterized by rapid and continuous technological innovation. We face intense competition from organizations such as large pharmaceutical companies, biotechnology companies and academic and research organizations. The major pharmaceutical and biotechnology organizations competing with us have greater capital resources, larger overall research and development staff and facilities and considerably more experience in drug development and commercialization. Consequently, we face competition on several fronts, including:

- competition for collaborators and investors;
- recruitment and retention of highly qualified scientific and management personnel;
- competition for qualified subjects for our clinical studies of our drug candidates, which may result in longer and more costly clinical trials;
- with respect to our drug development programs, competitors' from other companies that have potential drugs in preclinical development and clinical development that may result in effective, commercially successful treatments for the same cancers we target; and
- competition for partners to co-develop and advance our drug candidates through later-stage clinical trials and beyond.

In the area of small molecule anti-cancer therapeutics, we have identified a number of companies that have clinical development programs and focused research and development in small molecule approaches to cancer, including: Amgen, Inc. Ariad Pharmaceuticals, Inc., Astellas Pharma, Inc., Array BioPharma Inc., Astex Therapeutics, Cell Therapeutics, Inc., Curis, Inc., Cytokinetics, Inc., Exelixis, Inc., Evotec AG, GlaxoSmithKline, Gilead, FORMA Therapeutics, Incyte Corporation, Infinity Pharmaceuticals, Inc., Novartis, Pfizer, Roche and many others.

In addition, with respect to tivantinib, we are aware of a number of companies that are or may be pursuing a number of different approaches to MET inhibition, including Amgen Inc., AstraZeneca/ Hutchison MediPharma, AVEO Pharmaceuticals, Inc., Bristol-Myers Squibb Company, Exelixis, Inc., Incyte, Gilead, GlaxoSmithKline, Johnson & Johnson, Merck, Pfizer, Roche, Takeda and others. With

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respect to HCC, our lead indication, we are aware of a number of companies with products under development, including Abbott, Bayer, Bristol-Myers Squibb, Celgene, Dainippon Sumitomo, Eisai Co., Eli Lilly, Incyte, Merck, Novartis, Polaris Group, Roche, Servier, and 4SC AG.

With respect to ARQ 087, we are aware of a number of companies that are or may be pursuing a number of different approaches to FGFR inhibition, including Novartis, Astra Zeneca, Bayer, Debiopharm, Boeheringer Ingelheim, Eisai, Incyte, Johnson & Johnson, Clovis, Ariad, Pfizer, BioClin and Five Prime. With respect to iCCA, our lead indication for ARQ 087, we are aware of a number of companies with products under development, including Novartis, Concordia Healthcare, Agios, Bristol Meyers Squibb, Bayer, Dainippon Sumitomo, Exelexis, Oncotherapy, Spectrum, Delcath and Cellact Pharma Gmbh.

Regarding ARQ 092, we are aware of a number of companies that are or may be pursuing a number of different approaches to AKT inhibition, including Merck, Astra Zeneca, Bayer, Norvartis, Eli Lilly, Rexahn. Moreover, numerous companies have pursued and are pursuing inhibitors of PI3K and mTOR, two kinases in the PI3K-AKT-mTOR pathway, including Idelalisib, an approved PI3K inhibitor, and Everolimus, Temsirolimus and Rapamycin, approved mTOR inhibitors.

There can be no assurance that our competitors will not develop more effective or more affordable products or technology or achieve earlier product development and commercialization than ArQule, thus rendering our technologies and/or products obsolete, uncompetitive or uneconomical.

GOVERNMENT REGULATIONS

Virtually all pharmaceutical and biotechnology products that our collaborative partners or we develop will require regulatory approval by governmental agencies prior to commercialization. The nature and the extent to which these regulations apply vary depending on the nature of the products. In particular, human pharmaceutical products are subject to rigorous preclinical and clinical testing and other approval procedures by the FDA or the applicable regulatory authorities in countries other than the U.S. Various federal and, in some cases, state statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of these products. The process of obtaining these approvals and the subsequent compliance with appropriate statutes and regulations are time consuming and require substantial resources, and the outcome of these regulatory activities is uncertain.

Generally, in order to gain marketing authorization, a company first must conduct preclinical studies in the laboratory and in animal models to gain preliminary information on a compound’s activity and to identify potential safety problems. Preclinical studies must be conducted in accordance with applicable regulations of the relevant regulatory authority (e.g. FDA in the U.S., European Medicines Agency (“EMA”) in E.U.). The results of these studies are submitted as a part of an IND application with the FDA or a Clinical Trial Application (“CTA”) application with the appropriate regulatory authority outside of the U.S. The regulatory agency involved must review the data in the application before human clinical trials of an investigational drug can commence. If the regulatory authority does not object, a drug developer can begin clinical trials after expiration of a specified statutory period following submission of the application. Notwithstanding that the regulatory authority did not object during the applicable post-submission review period, the regulatory authority may at any time re-evaluate the adequacy of the application and require additional information about any aspect of the IND or CTA application and corresponding clinical trial, e.g. preclinical testing, drug formulation and manufacture, dosing regimens and drug administration or potential safety risks.

In order to eventually commercialize any products, we or our collaborator will be required to initiate and oversee clinical studies under an IND or CTA to demonstrate the safety and efficacy that are necessary to obtain marketing approval. Clinical trials are normally done in three phases and generally take several years, but may take longer to complete. Furthermore, a regulatory authority may suspend clinical trials at any time if it believes that the subjects participating in trials are being exposed to unacceptable risks or if the regulatory authority finds deficiencies in the conduct of the trials or other problems with our product under development.

In addition to these requirements, with some clinical candidates for which there is a valid predictive biomarker, a diagnostic test known as a companion diagnostic (“CDx”) may need to be developed and

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approved in parallel with the drug in order to identify patients who are likely to respond favorably to the drug. Approval is usually based on a Premarket Approval ("PMA") application which establishes the predictive value of the test in the context of a registration trial of the drug; this application is submitted in the U.S. to FDA's Center for Devices and Radiological Health. In the European Economic Area ("EAA") approval is achieved by obtaining a "CE mark" by submitting a Declaration of Conformity under the Medical Device Directive.

Because the METIV-HCC trial is enrolling patients with MET-diagnostic high HCC whom we believe are likely to benefit from treatment with tivantinib, the SPA also includes an immunohistochemistry ("IHC")-based companion diagnostic ("CDx") under development by Daiichi Sankyo and ourselves in collaboration with a third party provider of such tests. The CDx is being developed to enable the identification of the MET status of patients seeking to be enrolled in this trial. Our collaborator for the companion diagnostic test will need to submit a Premarket Approval ("PMA") application to FDA that establishes the predictive value of the CDx in connection with the registration and commercialization of the drug.

After completion of clinical trials of a new product, regulatory marketing approval must be obtained. If the product is classified as a new pharmaceutical, our collaborator or we will be required to file a New Drug Application ("NDA") or Marketing Authorization Application ("MAA"), and receive approval before commercial marketing of the drug. The marketing application contains, among other things, the results of the non-clinical and clinical testing of the drug. Marketing applications submitted to any regulatory authority can take several years to obtain approval and the regulatory authority is not obligated to grant approval at all. A regulatory agency can condition marketing approval on the conduct of costly post-marketing follow-up studies or can place restrictions on the sale or marketing of the drug in order to manage risks.

Even if regulatory clearances are obtained, a marketed product is subject to continual review and ongoing regulatory obligations. If and when a regulatory authority approves any of our or our collaborators' products under development, the manufacture and marketing of these products will be subject to continuing regulation, including compliance with current Good Manufacturing Practices ("cGMP"), adverse event reporting requirements and prohibitions on promoting a product for unapproved uses or making false or misleading statements or omissions with respect to a drug in advertising or promotion. Later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Various federal and, in some cases, state statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of pharmaceutical products.

For marketing outside the U.S., we or our partners will be subject to foreign regulatory requirements governing human clinical trials, marketing approval and post-marketing activities for pharmaceutical products and biologics. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country.

EMPLOYEES

As of December 31, 2015, we employed 36 people in Burlington, Massachusetts. Of that total, 21 are engaged in research and development and 15 in general and administration, and 8 hold PhDs, 4 hold MDs and 6 hold Masters Degrees in the sciences.

CERTAIN OTHER INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC maintains a website at http://www.sec.gov that contains reports, proxy and information statements and other information concerning filers. We also maintain a web site at http://www.arqule.com that provides additional information about our company and links to documents we file with the SEC. The Company's Corporate Governance Principles; the charters of the Audit Committee, the Compensation, Nominating and Governance Committee, and the Science Committee; and the Code of Conduct are also available on the Company's website.

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EXECUTIVE OFFICERS

Set forth below is certain information regarding our current executive officers, including their respective ages as of February 1, 2016.

NAME	AGE	POSITION
Paolo Pucci	54	Chief Executive Officer and a Director
Peter S. Lawrence	52	President and Chief Operating Officer
Robert J. Weiskopf	65	Chief Financial Officer and Treasurer
Dr. Brian Schwartz	54	Chief Medical Officer

Paolo Pucci

Chief Executive Officer

Mr. Pucci joined ArQule as Chief Executive Officer and a member of the Board in June 2008 from Bayer A.G., where he served as Senior Vice President and President in charge of the Bayer-Schering Pharmaceuticals Global Oncology/Specialized Therapeutics Business Units. Previously, Mr. Pucci was senior vice president of Bayer Pharmaceuticals Global Specialty Business Unit, President of U.S. Pharmaceutical Operations and a member of the Bayer Pharmaceuticals Global Management Committee. At Bayer, Mr. Pucci was involved in a broad range of activities related to Nexavar® (sorafenib), an oral multiple kinase inhibitor used to treat liver and kidney cancers. These activities included clinical development, regulatory review, corporate alliance management, product launch and marketing. Mr. Pucci joined Bayer as head of its Italian Pharmaceutical operations in 2001. Prior to Bayer, Mr. Pucci held positions of increasing responsibility with Eli Lilly, culminating with his appointment as Managing Director, Eli Lilly Sweden AB. At Lilly, his responsibilities included operations, sales, marketing and strategic planning. In November 2011, Mr. Pucci was appointed to the Board of Directors of Dyax Corp where he served as an independent director, member of the audit committee and chairman of the governance and nomination committee until the acquisition of Dyax by Shire in January 2016. In April 2013, he was appointed to the Board of Directors of Algeta ASA, an oncology company based in Oslo, Norway, where he served as an independent director and member of the audit committee until the acquisition of Algeta by Bayer A.G. He has also been a Director of NewLinks Genetics Corp., since November 2015. Mr. Pucci holds an M.B.A from the University of Chicago and is a graduate of the Università Degli Studi Di Napoli in Naples, Italy.

Peter S. Lawrence

President and Chief Operating Officer

Mr. Lawrence joined ArQule as Executive Vice President and Chief Business Officer in April 2006. He was named Chief Operating Officer in October 2007 and President in April 2008. Previously he was at Pod Venture Partners, an international venture capital firm which he co-founded in 2001 and where he most recently served as general partner. He helped drive the strategic growth of that firm, including deal sourcing and structuring, syndication and business expansion activities. Previously, Mr. Lawrence was an attorney and partner at Mintz, Levin, Cohn, Ferris Glovsky and Popeo, P.C., from 1991 to 2001. At Mintz Levin, he served as external corporate counsel to public and private companies, managed a transactional legal practice and provided strategic guidance to clients through periods of rapid growth and transformative corporate events. His public financing experiences include the initial public offering and numerous financings for America Online Inc. (AOL), as well as public financings for Biogen, Human Genome Sciences, Hybridon and many other companies. He worked on numerous mergers and acquisitions, including Roche/Compuchem, AOL/Time Warner, Steinway Piano, DEC/Intel, and Mitotix/GPC Biotech. Mr. Lawrence worked at Gaston & Snow from 1989 to 1991 in the firm’s Corporate Law Department. He holds a Bachelor’s degree from Amherst College and a J.D. from Boston University School of Law.

Robert J. Weiskopf

Chief Financial Officer and Treasurer

Mr. Weiskopf joined ArQule in February 2007 as Vice President of Finance, Corporate Controller, and Treasurer and was promoted to Chief Financial Officer and Treasurer in May 2015. Prior to that, Mr. Weiskopf was Chief Financial Officer of Aware Inc. from 2004 until 2006 and Director of Finance at

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Lightbridge, Inc. from 2000 to 2004. He held a number of financial management positions of increasing responsibility at Digital/Compaq Computer Corporation for 19 years and began his career working at Ernst & Young LLP for five years. Mr. Weiskopf was also a part-time instructor in the Boston University M.B.A. program. Mr. Weiskopf is a Certified Public Accountant and holds a B.S.B.A. magna cum laude and M.S.B.A. in accounting from the University of Massachusetts at Amherst.

Brian Schwartz, M.D.

Chief Medical Officer

Dr. Schwartz joined ArQule in July 2008 from Ziopharm Oncology, Inc., where as Senior Vice President, clinical and regulatory affairs, and Chief Medical Officer he built and led clinical, regulatory, and quality assurance departments responsible for the development of new cancer drugs. Prior to Ziopharm, Dr. Schwartz held a number of positions at Bayer Healthcare. His experience in oncology has encompassed the clinical development of novel cytostatic, cytotoxic and immunological agents. At Bayer, Dr. Schwartz was a key physician responsible for the global clinical development of Nexavar® (sorafenib) and led the clinical team through a successful Phase 3 trial in renal cell cancer, leading to FDA approval. He has extensive regulatory experience working with the FDA's Oncology Division, the European Medicines Agency (EMA), and numerous other health authorities. Dr. Schwartz has also been responsible for U.S. clinical and regulatory activities, including Phase 4 studies and interactions with the National Cancer Institute and other oncology cooperative groups. Dr. Schwartz received his medical degree from the University of Pretoria, South Africa, practiced medicine, and worked at the University of Toronto prior to his career in industry.

ITEM 1A. RISK FACTORS

RISKS RELATED TO OUR INDUSTRY AND BUSINESS STRATEGY

Our products are in pre-clinical and clinical stages of development and we may not successfully develop a drug candidate that becomes a commercially viable drug.

The discovery and development of drugs is inherently risky and involves a high rate of failure. We do not have extensive experience in discovery and development of commercial drugs. Our drug candidates and drug research programs will continue to require significant, time-consuming and costly research and development, testing and regulatory approvals.

Our leading clinical-stage product candidate, tivantinib, is based on inhibition of the Met receptor tyrosine kinase. Our proprietary early clinical-stage products include ARQ 092 and ARQ 087, designed to inhibit the AKT kinase and fibroblast growth factor receptor ("FGFR"), respectively. A third early stage product, ARQ 761, is being investigated as a potential NQO1 inhibitor. Our approaches and scientific platforms may not lead to the development of approvable or marketable drugs.

In addition to our clinical-stage programs, we have a limited number of pre-clinical and research-stage programs in our pipeline. Our viability as a company depends, in part, on our ability to continue to create drug candidates for ourselves and our collaborators. Numerous significant factors will affect the success of our drug research and development efforts, including the biology and chemistry complexity involved, availability of appropriate technologies, the uncertainty of the scientific process and the capabilities and performance of our employees. Our research and development capabilities may not be adequate to develop additional, viable drug candidates.

We must show the safety and efficacy of our product candidates through expensive, time consuming preclinical testing and clinical trials, the results of which are uncertain and governed by exacting regulations.

Our product candidates are in clinical or preclinical stages of development and may not prove to be sufficiently safe or effective in more advanced human clinical trials. We will need to conduct extensive further testing of all of our product candidates, expend significant additional resources and possibly partner emerging programs to realize commercial value from any of our product candidates.

Before obtaining regulatory approvals for the commercial sale of our products, we and our collaborative partners must demonstrate through preclinical studies (laboratory or animal testing) and clinical trials (human testing) that our proposed products are safe and effective for use in each target

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indication. This testing is expensive and time-consuming, and failure can occur at any stage. If we terminate a preclinical or clinical program, we will have expended resources in an effort that will not provide a return on our investment and missed the opportunity to have allocated those resources to potentially more productive uses.

Clinical trials must meet FDA and foreign regulatory requirements. We have limited experience in designing, conducting and managing the preclinical studies and clinical trials necessary to obtain regulatory approval for our product candidates in any country. We or our collaborative partners may encounter problems in clinical trials that may cause us or the FDA or foreign regulatory agencies to delay, suspend or terminate our clinical trials at any phase. These problems could include our inability to manufacture or obtain sufficient quantities of materials produced in accordance with current Good Manufacturing Practice, or cGMP, for use in our clinical trials, conduct clinical trials at our preferred sites, enroll a sufficient number of patients for our clinical trials at one or more sites, or begin or successfully complete clinical trials in a timely fashion, if at all. Furthermore, we, the FDA or foreign regulatory agencies may suspend clinical trials of our product candidates at any time if we or they believe the subjects participating in the trials are being exposed to unacceptable health risks as a result of adverse events occurring in our trials or if we or they find deficiencies in the clinical trial process or conduct of the investigation.

Acceptable results from initial preclinical studies and clinical trials of products under development are not necessarily indicative of results that will be obtained from subsequent or more extensive preclinical studies and clinical testing in humans. Clinical trials may not demonstrate sufficient safety and efficacy to obtain the required regulatory approvals or result in marketable products. Failure to adequately demonstrate the safety and efficacy of a product under development will delay and could prevent its regulatory approval.

A number of companies in the pharmaceutical industry, including biotechnology companies, have suffered significant setbacks in advanced clinical trials, even after generating promising results in earlier trials.

Although it is part of our strategy to pursue clinical development to take advantage of available accelerated regulatory approval processes, there is no guarantee that our product candidates will show the evidence predictive of clinical benefit necessary to qualify for such regulatory treatment.

Delays in clinical testing could result in increased costs to us and delay our ability to obtain regulatory approval and commercialize our product candidates.

Clinical trials typically take several years to complete. The duration and cost of clinical trials will vary greatly depending on the nature, complexity, and intended use of the drug being tested. Even if the results of our clinical trials are favorable, the clinical trials of tivantinib and other product candidates will continue for several years and may take significantly longer than expected to complete. Delays in the commencement or completion of clinical testing for tivantinib or pre-clinical or clinical testing for any of our other product candidates could significantly affect our product development costs and business plan.

We have experienced a number of clinical trial-related delays and obstacles related to tivantinib. These delays and obstacles include: results of the MARQUEE trial in non-squamous NSCLC, which did not meet its primary endpoint; results of the ATTENTION trial in non-squamous NSCLC, which did not meet its primary endpoint; results of the Phase 2 trial in colorectal cancer, which did not meet its primary endpoint; results of the Phase 2 trial in KRAS-mutant NSCLC, which did not meet its primary endpoint; results of NIH-sponsored clinical trials; the side effect of ILD observed in the ATTENTION trial; and the side effect of neutropenia observed in the Phase 2 and Phase 3 METIV-HCC trials in HCC, leading to the lowering of the doses in both of these trials. We cannot predict if the data from these trials will lead to further testing or approval of tivantinib as either a single agent or part of combination therapies in these indications.

At any time, a clinical trial can be placed on “clinical hold” or temporarily or permanently stopped for a variety of reasons, principally for safety concerns. We may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent us from receiving regulatory approval or commercializing our product candidates, including the following:

- our clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to provide additional information about formulation or manufacture of our product candidates or clinical trial design or to conduct additional clinical and/or pre-clinical testing or to abandon programs;

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- we may experience delays related to reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, clinical investigators and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs, clinical investigators and trial sites;

- we may be unable to source suitable diagnostic tests for our trials in targeted patient populations;

- we may be unable to manufacture or obtain sufficient quantities of a product candidate for use in clinical trials;

- trial results may not meet the level of statistical significance required by the FDA or other regulatory agencies;

- enrollment in our clinical trials for our product candidates may be slower than we anticipate, resulting in significant delays;

- we, or regulators, may suspend or terminate our clinical trials if the participating patients are being exposed to unacceptable health risks;

- the effects of our product candidates on patients may not be the desired therapeutic effects or may include undesirable side effects or other characteristics that may delay or preclude regulatory approval or limit their commercial use, if approved; and

- the FDA or other regulatory agencies may lack experience in evaluating the safety and efficacy of our drugs, which could lengthen the regulatory review process.

Completion and duration of clinical trials depends on, among other things, our ability to enroll a sufficient number of patients, which is a function of many factors, including:

- the incidence among the general population of diseases which contain therapeutic endpoints chosen for evaluation;

- the eligibility criteria defined in the protocol;

- the size of the patient population required for analysis of the trial’s therapeutic endpoints;

- our ability to recruit clinical trial investigators and sites with the appropriate competencies and experience;

- our ability to obtain and maintain patient consents; and

- competition for patients by clinical trial programs for other treatments.

We reached Special Protocol Assessment ("SPA") agreements with the FDA for the design of the ongoing Phase 3 METIV trial of tivantinib in patients with second line HCC and for the Phase 3 MARQUEE trial, which was discontinued following an interim analysis. The SPA process is a procedure by which the FDA provides official evaluation and written guidance on the design and size of proposed protocols that are intended to form the basis for a New Drug Application. Final marketing approval depends on the results of the trial. The SPA may not be sufficient for the purpose of obtaining marketing approval for tivantinib. Clinical trials may also be delayed or repeated as a result of ambiguous or negative interim results or unforeseen complications in testing. In addition, a clinical trial may be suspended or terminated by us, the FDA, the institutional review board ("IRB") overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site, or other regulatory authorities due to a number of factors, including:

- failure to design appropriate clinical trial protocols;

- failure by us, our employees, our CROs or their employees to conduct the clinical trial in accordance with all applicable FDA, Drug Enforcement Administration ("DEA") or other regulatory requirements or our clinical protocols;

- inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

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- discovery of serious or unexpected toxicities or side effects experienced by study participants or other unforeseen safety issues;

- lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of our CROs and other third parties; lack of effectiveness of any product candidate during clinical trials;

- slower than expected rates of subject recruitment and enrollment rates in clinical trials;

- failure of our CROs or other third-party contractors to comply with all contractual requirements or to perform their services in a timely or acceptable manner;

- inability or unwillingness of medical investigators to follow our clinical protocols; and

- unfavorable results from on-going clinical trials and pre-clinical studies.

Additionally, changes in applicable regulatory requirements and guidance may occur and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial. If we experience delays in completion of, or if we terminate, any of our clinical trials, the commercial prospects for tivantinib and our other product candidates may be harmed, which may have a material adverse effect on our business, results of operations, financial condition and prospects.

We have limited clinical development and commercialization experience.

We have limited experience conducting clinical trials and have never obtained regulatory approvals for any drug. We have not independently completed a Phase 3, or pivotal, clinical trial, filed an NDA or commercialized a drug. We have no experience as a company in the sale, marketing or distribution of pharmaceutical products and do not currently have a sales and marketing organization. Developing commercialization capabilities will be expensive and time-consuming, and could delay any product launch. We may not be able to develop a successful commercial organization. To the extent we are unable or determine not to acquire these resources internally, we will be forced to rely on third-party clinical investigators, clinical research organizations, marketing organizations or our collaboration partners as we have done for our Phase 3 NSCLC trial and as we are doing for our Phase 3 METIV-HCC trial. If we were unable to establish adequate capabilities independently or with others, our drug development and commercialization efforts could fail, and we may be unable to generate product revenues.

We depend substantially on the successful completion of Phase 3 clinical trials for our product candidates. The positive clinical results obtained for our product candidates in Phase 2 clinical studies may not be repeated in Phase 3. We have experienced significant delays and obstacles in the Phase 3 MARQUEE and ATTENTION trials, the METIV-HCC trial and the Phase 2 CRC trial, details of which are described above. The MARQUEE trial was discontinued early following a planned interim analysis, at the recommendation of an independent DMC, when it concluded that the study would not meet its primary endpoint. Patient enrollment in the ATTENTION trial was permanently suspended following the recommendation of an independent Safety Review Committee after the reporting of cases of ILD. The Phase 2 CRC trial did not meet its primary endpoint. The METIV-HCC trial was delayed as a result of a dose reduction. Our product candidates are subject to the risks of failure inherent in pharmaceutical development. Before obtaining regulatory approval for the commercial sale of any product candidate, we and our collaborators must successfully complete Phase 3 clinical trials. Negative or inconclusive results of a

Phase 3 clinical study could cause the FDA to require that we repeat it or conduct additional clinical studies. Furthermore, while we have obtained positive safety and efficacy results for tivantinib during our prior clinical trials, we cannot be certain that these results will be duplicated when our product candidates are tested in a larger number of patients in our Phase 3 clinical trials.

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If our drug discovery and development programs do not progress as anticipated, our revenue and stock price could be negatively impacted.

We estimate the timing of a variety of preclinical, clinical, regulatory and other milestones for planning purposes, including when a drug candidate is expected to enter clinical trials, how soon patients will be recruited and enrolled in these trials, when a clinical trial will be completed and when an application for regulatory approval will be filed. We base our estimates on facts that are currently known to us and on a variety of assumptions, many of which are beyond our control. If we or our collaborators do not achieve milestones when anticipated our revenues and stock price could decline. In addition, our research and clinical testing may be delayed or abandoned if we or our competitors subsequently discover other compounds that show improved safety or efficacy compared to our product candidates, which could limit our ability to generate revenues, cause us to incur additional expense and cause the market price of our common stock to decline significantly.

RISKS RELATED TO OUR FINANCIAL CONDITION

We have incurred significant losses since our inception and anticipate that we will incur significant continued losses for the next several years, and our future profitability is uncertain.

From our inception in 1993 through December 31, 2015 we have incurred cumulative losses of approximately $482 million. These losses have resulted principally from the costs of our research activities, acquisitions, and enhancements to our technology and clinical trials. In the past we derived our revenue primarily from license and technology transfer fees and payments for compound deliveries associated with our discontinued chemistry services operations; research and development funding paid under our agreements with collaboration partners; and to a limited extent, milestone payments.

We expect that our expenses will remain significant in order to fund research, development, clinical testing and commercialization of our drug candidates. We currently have a number of product candidates in various stages of clinical development. As a result, we will need to generate significant additional revenues to achieve profitability. To attain profitability, we will need to develop clinical products successfully and market and sell them effectively, either by ourselves or with collaborators. We have never generated revenue from the commercialization of our product candidates, and there is no guarantee that we will be able to do so. Even if were to generate product revenues and achieve profitability, we may not be able to maintain or increase profitability. Because of the numerous risks and uncertainties associated with the development of drugs, we are unable to predict the extent of any future losses or when we will become profitable, if at all. If we fail to become profitable, or if we are unable to fund our continuing losses, we may be unable to continue our business.

We may need substantial additional funding and due to global capital and credit market conditions or for other reasons, we may be unable to raise capital when needed, or on terms favorable to us, which could force us to delay, reduce or eliminate our drug discovery, product development and commercialization activities.

Volatility and disruption in the global capital and credit markets in recent years have led to a tightening of business credit and investment capital in the U.S. and internationally. If global economic and financial market conditions deteriorate or remain weak for an extended period of time, our efforts to raise capital will face additional difficulties.

Developing drugs, conducting clinical trials, and commercializing products are expensive. Our future funding requirements will depend on many factors, including:

- the progress and cost of our ongoing and future collaborative and independent clinical trials and other research and development activities and our ability to share such costs of our clinical development efforts with third parties;

- the costs and timing of obtaining regulatory approvals;

- the costs of filing, prosecuting, maintaining, defending and enforcing any patent applications, claims, patents and other intellectual property rights;

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- the cost and timing of securing manufacturing capabilities for our clinical product candidates and commercial products, if any;

- the costs and timing of commercializing our product candidates, including establishing or contracting for sales, marketing and distribution capabilities, if any such candidates receive regulatory approval for commercial sale; and

- the costs of any acquisitions of or investments in businesses, products and technologies.

We may seek the capital necessary to fund our operations through public or private equity offerings, debt financings, or collaboration and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, our stockholders' ownership interests will be diluted and the terms of such securities may include liquidation or other preferences that adversely affect our stockholders' rights. Other debt-financing arrangements may require us to pledge certain assets and enter into covenants that would restrict certain business activities or our ability to incur further indebtedness. If we raise additional funds through collaboration and licensing arrangements with third parties, we may have to relinquish rights to certain product candidates that we might otherwise seek to develop or commercialize independently, or grant licenses on terms that are not favorable to us. There can be no assurance that sufficient funds will be available to us when required, on satisfactory terms, or at all. If we are unable to obtain additional funds when needed, we may have to delay, reduce the scope of or eliminate some of our development and commercialization programs, or obtain funds through other arrangements on unattractive terms, which could prevent us from successfully executing our business strategy.

We have federal and state net operating losses ("NOL") and research and development credit carryforwards which, if we were to become profitable, could be used to offset/defer federal and state income taxes. Such carryforwards may not, under certain circumstances related to changes in ownership of our stock, be available to us.

As of December 31, 2015, we had federal NOL, state NOL, and research and development credit carryforwards of approximately $357 million, $177 million and $28 million respectively, and expire at various dates through 2035. Such carryforwards could potentially be used to offset certain future federal and state income tax liabilities. Utilization of carryforwards may be subject to a substantial annual limitation pursuant to Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, as well as similar state provisions due to ownership changes that have occurred previously or that could occur in the future. In general, an ownership change, as defined by Section 382, results from transactions increasing the ownership of certain stockholders or public groups in the stock of a corporation by more than 50 percentage points over a three-year period. We undertook a detailed study of our NOL and research and development credit carryforwards through January 31, 2016 to determine whether such amounts are likely to be limited by Sections 382 or 383. As a result of this analysis, we currently do not believe any Section 382 or 383 limitations will significantly impact our ability to offset income with available NOL and research and development credit carryforwards. However, future ownership changes under Section 382 may limit our ability to fully utilize these tax benefits. Any limitation may result in expiration of a portion of the carryforwards before utilization. If we were not able to utilize our carryforwards, we would be required to use our cash resources to pay taxes that would otherwise have been offset, thereby reducing our liquidity.

RISKS RELATED TO REGULATORY APPROVAL

Our product candidates are subject to a lengthy and uncertain regulatory process that may not result in the necessary regulatory approvals, which would adversely affect our ability to commercialize products. We have only limited experience in regulatory affairs.

Our product candidates, as well as the activities associated with their research, development and commercialization, are subject to extensive regulation by the FDA in the U.S. and by comparable authorities in other countries, for example EMA in the E.U. These regulations govern or influence the manufacturing, assessment of benefit and risk, safety, labeling, storage, records and marketing of these products.

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Failure to obtain regulatory approval for a product candidate would prevent us from commercializing that product candidate. We have not applied for or received regulatory approval to market any of our product candidates in any jurisdiction and have only limited experience in preparing and filing the applications necessary to gain regulatory approvals. The process of obtaining regulatory approvals is expensive, often takes many years, if approval is obtained at all, and can vary substantially based upon the type, complexity and novelty of the product candidates involved. The regulatory process requires preclinical testing, and data obtained from preclinical and clinical activities are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. In addition, the results of later trials may not confirm the positive results of earlier preclinical studies or trials. Delays or rejections may also be encountered based upon changes in regulatory policy for product approval during the period of product development and regulatory agency review. Changes in regulatory approval policy, regulations or statutes or the process for regulatory review during the development or approval phases of our product candidates may cause delays in the approval or rejection of an application.

We have completed certain Phase 1 and Phase 2 clinical trials of tivantinib. We also completed enrollment of patients in the Phase 3 METIV trial in HCC after reducing the original dose employed in this trial due to a higher than anticipated rate of neutropenia and together with our partner, Kyowa Hakko Kirin, are conducting a Phase 3 clinical trial in HCC. We also completed patient enrollment in the Phase 3 MARQUEE trial in NSCLC, which was discontinued following a planned interim analysis that concluded the study would not meet its primary endpoint. Patients also completed treatment in the Phase 3 ATTENTION trial by Kyowa Hakko Kirin, enrollment in which was permanently suspended following the recommendation of an independent Safety Review Committee after the reporting of cases of ILD in the study as a drug-related adverse event. It is our understanding that patients who were enrolled in the ATTENTION trial at the time of the safety finding continued to receive treatment with the combination of tivantinib and erlotinib upon request from the patient and investigator and after providing new informed consent. Results of the downsized ATTENTION trial did not meet the primary endpoint of improved overall survival. We have also conducted or are conducting Phase 1a/1b or Phase 2 clinical testing of ARQ 092, ARQ 087, ARQ 761, and ARQ 751. We have never filed or prosecuted the applications necessary to gain regulatory approvals.

A company first must conduct preclinical studies in the laboratory and in animal models to gain preliminary information on a candidate compound’s activity and to identify potential safety problems. Preclinical studies must be conducted in accordance with applicable regulations of the relevant regulatory authority (e.g. the FDA in the U.S., the EMA in E.U.). The results of these studies are submitted as a part of an IND application with the FDA or a Clinical Trial Application (“CTA”) with the appropriate regulatory authority outside of the U.S. The regulatory agency involved must review the data in the application before human clinical trials of an investigational drug can commence. If the regulatory authority does not object, a drug developer can begin clinical trials after expiration of a specified statutory period following submission of the application. Notwithstanding that the regulatory authority does not respond during the thirty-day, post-submission review period, the regulatory authority may at any time re-evaluate the adequacy of the application and require additional information about any aspect of the IND or CTA and corresponding clinical trial, e.g. preclinical testing, drug formulation and manufacture, dosing regimens and drug administration or potential safety risk. Before a new marketing application can be filed with the FDA or other regulatory authority, the product candidate must undergo extensive clinical trials. Any clinical trial may fail to produce results satisfactory to the regulatory authority, typically for lack of safety or efficacy or for safety risks. For example, the regulatory authority could determine that the design of a clinical trial is inadequate to produce reliable results or convincing results.

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

One of the key elements of our clinical development strategy is to seek to identify patient subsets within a disease category that may derive particular benefit from the product candidates we are developing. In collaboration with our partners and third party developers, we plan to develop companion diagnostics to help us to identify patients within a particular subset, both during our clinical trials and in connection with the commercialization of our product candidates. For example, we are using diagnostic tests to identify

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MET high patients for the METIV-HCC and the JET-HCC trials. Companion diagnostics are subject to regulation by the FDA and comparable foreign regulatory authorities as medical devices and require separate regulatory approval prior to commercialization. We do not develop companion diagnostics internally and thus we are dependent on the sustained cooperation and effort of third-party collaborators in developing and obtaining approval for these companion diagnostics. We, our partners and our companion diagnostic collaborators may encounter difficulties in developing and obtaining approval for companion diagnostics, including issues relating to selectivity/specificity, analytical validation, reproducibility, or clinical validation. Any delay or failure by our collaborators to develop or obtain regulatory approval of the companion diagnostics could delay or prevent approval of our product candidates. In addition, our collaborators may encounter production difficulties or difficulties sourcing key materials that could constrain the supply of the companion diagnostics, and both they and we may have difficulties gaining acceptance of the use of the companion diagnostics in the clinical community. If such companion diagnostics fail to gain market acceptance, it would have an adverse effect on our ability to derive revenues from sales of our products. In addition, the diagnostic companies with whom we and our partners work may decide to discontinue selling or manufacturing the companion diagnostic that we anticipate using in connection with development and commercialization of our product candidates, or our relationship with such diagnostic companies may otherwise terminate according to the terms of our agreements with them. 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 the development and commercialization of our product candidates or do so on commercially reasonable terms, which could adversely affect and/or delay or prevent the development or commercialization of our product candidates. In addition, many current companion diagnostic products, including those used in the METIV-HCC trial, use immunohistochemistry (“IHC”) to identify patients within a target group. The results of IHC tests are determined by pathologists and clinicians and therefore are subject to variation from reader to reader. While efforts are made to ensure rigorous training, such inherent variability can impact patient selection and cause variation from lab to lab and trial to trial.

Even if our drug candidates obtain regulatory approval, we and our collaborators will be subject to ongoing government regulation.

Even if regulatory authorities approve any of our drug candidates, the manufacture, marketing and sale of these drugs will be subject to strict and ongoing regulation. Compliance with such regulations may consume substantial financial and management resources and expose us and our collaborators to the potential for other adverse circumstances. For example, a regulatory authority can place restrictions on the sale or marketing of a drug in order to manage the risks identified during initial clinical trials or after the drug is on the market. A regulatory authority can condition the approval for a drug on costly post-marketing follow-up studies. Based on these studies, if a regulatory authority does not believe that the drug demonstrates a clinical benefit to patients or an acceptable safety profile, it could limit the indications for which a drug may be sold or revoke the drug’s marketing approval. In addition, identification of certain side effects either during clinical trials or after a drug is on the market may result in reformulation of a drug, additional preclinical and clinical trials, labeling changes, termination of ongoing clinical trials or withdrawal of approval. Any of these events could delay or prevent us from generating revenue from the commercialization of these drugs and cause us to incur significant additional costs.

Even if we or our collaborators bring products to market, we may be unable to price our products effectively or obtain adequate reimbursement for sales of our products, which would have an adverse effect on our revenues.

The requirements governing product licensing, pricing and reimbursement vary widely from country to country. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after product-licensing approval is granted. As a result, we may obtain regulatory approval for a drug candidate in a particular country, but then be subject to price regulations that reduce our profits from the sale of the product. In some foreign markets pricing of prescription pharmaceuticals is subject to continuing government control even after initial marketing approval. Varying price regulation between countries can lead to inconsistent prices and some re-selling by third parties of products from markets where products are sold at lower prices to markets where those products are sold at higher prices. Any practice of exploiting price differences between countries could undermine our sales in markets with higher prices and reduce the sales of our future products, if any.

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Additionally, third party payors, such as government and private insurance plans, frequently require companies to provide rebates and predetermined discounts from list prices and are increasingly challenging the prices charged for pharmaceuticals and other medical products. Our products may not be considered cost-effective, and reimbursement to the patient may not be available or be sufficient to allow the sale of our products on a competitive basis. We, or our collaborators, may not be able to negotiate favorable reimbursement rates for our products. If we, or our collaborators, fail to obtain an adequate level of reimbursement for our products by third-party payors, sales of the drugs would be adversely affected or there may be no commercially viable market for the products.

We face potential liability related to the privacy of health information we obtain from research institutions.

Most health care providers, including research institutions from which we or our collaborators obtain patient information, are subject to privacy regulations promulgated under the Health Insurance Portability and Accountability Act of 1996, or HIPAA. Although we are not directly regulated by HIPAA, we could face substantial criminal penalties if we knowingly receive individually identifiable health information from a health care provider or research institution that has not satisfied HIPPA's disclosure standards. In addition, certain state privacy laws may apply directly to our operations and/or those of our collaborators and may impose restrictions on our use and dissemination of individuals' health information. Moreover, patients about whom we or our collaborators obtain information, as well as the providers who share this information with us, may have contractual rights that limit our ability to use and disclose the information. Claims that we have violated individuals' privacy rights or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

RISKS RELATED TO COLLABORATIONS

Part of our business strategy involves collaborative out-licensing of our drug candidates while retaining commercialization or co-promotional rights in parts of the world. We may not be able to find collaborators or successfully form suitable collaborations to further our drug development and commercialization efforts.

We have sought and may seek collaborators for our drug development and commercialization efforts. We may enter into these collaborations to obtain external financing for drug development and to obtain access to drug development and commercialization expertise. The availability of partners depends on the willingness of pharmaceutical and biotechnology companies to collaborate in drug discovery activities. Only a limited number of pharmaceutical and biotechnology companies would fit our requirements. The number could decline further through consolidation, or the number of collaborators with interest in our drugs could decline. If the number of our potential collaborators were to decline, the remaining collaborators may be able to negotiate terms less favorable to us.

We face significant competition in seeking drug development collaborations, both from other biotechnology companies and from the internal capabilities and compound pipelines of the pharmaceutical and biotechnology companies themselves. This competition is particularly intense in the oncology field. Our ability to interest such companies in forming co-development and commercialization arrangements with us will be influenced by, among other things:

- the compatibility of technologies;

- the potential partner's acceptance of our approach to drug discovery;

- the novelty, quality and commercial potential of any drug candidate we may succeed in developing; and

- our ability, and collaborators' perceptions of our ability, to achieve intended results in a timely fashion, with acceptable quality and cost.

Even if we are able to gain the interest of potential drug development partners, the negotiation, documentation and implementation of collaborative arrangements are complex and time-consuming. Collaborations may not be available

on commercially acceptable terms and, if formed, may not be commercially successful or, if successful, may not realize sufficient benefit for us. If we are unable to form

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collaborations, we may not gain access to the financial resources and industry expertise necessary to develop and commercialize drug products or successfully market any products we develop on our own and, therefore, be unable to generate revenue from our products. In addition, our past, existing and future collaboration terms contain or will likely contain limitations on classes of chemical compounds or biological targets that we may explore outside those collaborations for our own use.

Our success depends in part on the efforts of our current and possible future collaborators, who will likely have substantial control and discretion over the continued development and commercialization of drug candidates, including tivantinib, that are the subjects of our collaborations.

Our current collaborators, including Kyowa Hakko Kirin, Daiichi Sankyo, the NCI and the NHGRI have, and future collaborators will have significant discretion in determining the efforts and amount of resources that they dedicate to our collaborations. Our collaborators may determine not to proceed with clinical development or commercialization of a particular drug candidate for a number of reasons that are beyond our control, even under circumstances where we might have continued such a program. In addition, our rights to receive milestone payments and royalties from our collaborators will depend on our collaborators' abilities to establish the safety and efficacy of our drug candidates, obtain regulatory approvals and achieve market acceptance of products developed from our drug candidates. We may also depend on our collaborators to manufacture clinical scale quantities of some of our drug candidates and, possibly, for commercial scale manufacture, distribution and direct sales. Our collaborators may not be successful in manufacturing our drug candidates or successfully commercializing them.

We face additional risks in connection with our existing and future collaborations, including the following:

- our collaborators may develop and commercialize, either alone or with others, products that are similar to or competitive with the products that are the subject of the collaboration with us;

- our collaborators may underfund, not commit sufficient resources to, or conduct in an unsatisfactory matter the testing, marketing, distribution or other development of our drug candidates;

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

- our collaborators may encounter conflicts of interest, changes in business strategy or other business issues which could adversely affect their willingness or ability to fulfill their obligations to us (for example, pharmaceutical and biotechnology companies historically have re-evaluated their priorities following mergers and consolidations, which have been common in recent years in these industries);

- disputes may arise between us and our collaborators delaying or terminating the research, development or commercialization of our drug candidates, resulting in significant litigation or arbitration that could be time-consuming and expensive, or causing collaborators to act in their own self-interest and not in the interest of our stockholders;

- we might not have the financial or human resources to meet our obligations or take advantage of our rights under the terms of our existing and future collaborations; and

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our existing collaborators may exercise their respective rights to terminate without cause their collaborations with us, in which event, we might not be able to complete development and commercialization of tivantinib and other drug candidates on our own.

We may not receive any further milestone, royalty or license payments under our current collaborations.
Although we have received license fees and other payments to date under our current drug development collaborations with Kyowa Hakko Kirin and Daiichi Sankyo, we may not receive any royalty payments or additional license and milestone fees under such agreements. Our receipt of any future

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milestone, royalty or license payments depends on many factors, including whether our collaborators want or are able to continue to pursue potential drug candidates, intellectual property issues, unforeseen complications in the development or commercialization process, and the ultimate commercial success of the drugs.

Our cumulative share of the Daiichi Sankyo Phase 3 costs through December 31, 2015 totaled $101.4 million. We received a milestone of $25 million in February 2011 upon enrolling the first patient in the MARQUEE trial, the cash proceeds of which were subsequently applied to our share of Phase 3 collaboration costs. On January 31, 2013, we announced that the first patient had been enrolled in the pivotal Phase 3 METIV trial of tivantinib, entitling us to a $15 million milestone. That $15 million milestone was also netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. Our cumulative share of Phase 3 collaboration costs has exceeded the amount of milestones received through December 31, 2015 by $61.4 million, which will be netted against future milestones and royalties, if any.

RISKS RELATED TO RELATIONSHIPS WITH THIRD PARTY VENDORS

We rely heavily on third parties such as contract research organizations, to conduct clinical trials and perform research and analysis services for us. If third parties upon which we rely do not perform as contractually required or expected, we may not be able to develop further, obtain regulatory approval for or commercialize our product candidates.

We do not have the ability or the human resources to perform all of the testing or conduct all of the clinical trials that are necessary in connection with the development of our product candidates. We are using third-party clinical research organizations, or CROs, to oversee many of our ongoing clinical trials and expect to use the same or similar organizations for certain of our future clinical trials. Our reliance on these third parties reduces our control over these activities. We may face delays outside of our control if these parties do not perform their obligations in a timely or competent fashion or if we are forced to change service providers or if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to our clinical protocols or regulatory requirements or for other reasons. These risks are heightened if we conduct clinical trials outside of the U.S., where it may be more difficult to ensure that studies are conducted in compliance with FDA requirements. Any third party that we hire to conduct clinical trials may also provide services to our competitors, which could compromise the performance of their obligations to us. If we experience significant delays in the progress of our clinical trials and in our plans to file NDAs, the commercial prospects for product candidates could be harmed and our ability to generate product revenue would be delayed or prevented.

If the third parties we rely upon to conduct, supervise and monitor our clinical studies perform in an unsatisfactory manner, it may harm our business.

We rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials. While we have agreements governing their activities, we have limited influence over their actual performance. We have relied and plan to continue to rely upon CROs to monitor and manage data for our ongoing clinical programs for tivantinib and our other product candidates, as well as the execution of nonclinical studies. We control only certain aspects of our CROs' activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CROs does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with the FDA's current Good Clinical Practices, or cGCPs, which are regulations and guidelines enforced by the FDA for all of our product candidates in clinical development. The FDA enforces these cGCPs through periodic inspections of trial sponsors, principal investigators and clinical trial sites. If we or our CROs fail to comply with applicable cGCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA may require us to perform additional clinical trials before approving our marketing applications. Upon inspection, the FDA may determine that our Phase 3 clinical trials do not comply with cGCPs. In addition, our Phase 3 clinical trials will require a sufficiently large number of test subjects to evaluate the safety and effectiveness of tivantinib. Accordingly, if our CROs fail to comply with these regulations or fail to recruit a sufficient number of patients, we may be required to repeat the Phase 3 clinical trials, which would delay the

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regulatory approval process. Our CROs are not our employees, and we cannot control whether or not they devote sufficient time and resources to our ongoing clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical studies, or other drug development activities which could harm our competitive position. We face the risk of potential unauthorized disclosure or misappropriation of our intellectual property by CROs, which may allow our potential competitors to access our proprietary technology. If our CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements, or for any other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize tivantinib, or our other product candidates. As a result, our financial results and the commercial prospects for tivantinib and any future product candidates that we develop would be harmed, our costs could increase, and our ability to generate revenues could be delayed or eliminated.

We have limited manufacturing experience. Currently, we primarily rely on third parties to provide sufficient quantities of our product candidates to conduct pre-clinical and clinical studies. In addition, we rely on our collaborators for drug supply of tivantinib, and our collaborators also rely on third party manufacturers. We have no control over our manufacturers', suppliers' and collaborators' compliance with manufacturing regulations, and their failure to comply could interrupt our drug supply.

To date, our product candidates have been manufactured in relatively small quantities for preclinical and clinical trials. We have no experience in manufacturing any of our product candidates on a large scale and have contracted with third party manufacturers (as have our collaborators Kyowa Kirin and Daiichi Sankyo) to provide material for clinical trials and to assist in the development and optimization of our manufacturing processes and methods. Our and our partners' ability to conduct clinical trials and commercialize our product candidates will depend on the ability of such third parties to manufacture our products on a large scale at a competitive cost and in accordance with cGMP and other regulatory requirements. Significant scale-up of manufacturing may result in unanticipated technical challenges and may require additional validation studies that the FDA must review and approve. If we or our partners are not able to obtain contract cGMP manufacturing on commercially reasonable terms, obtain or develop the necessary materials and technologies for manufacturing, or obtain intellectual property rights necessary for manufacturing, we may not be able to conduct or complete clinical trials or commercialize our product candidates. There can be no assurance that we or our partners will be able to obtain such requisite terms, materials, technologies and intellectual property necessary to successfully manufacture our product candidates for clinical trials or commercialization. Our product candidates require precise, high-quality manufacturing. The failure to achieve and maintain these high manufacturing standards, including the incidence of manufacturing errors, could result in patient injury or death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could seriously hurt our business. The facilities used by our contract manufacturers and our partners may undergo inspections by the FDA for compliance with cGMP regulations before our product candidates produced there can receive marketing approval. If these facilities do not satisfy cGMP requirements in connection with the manufacture of our product candidates, we and our partners may need to conduct additional validation studies, or find alternative manufacturing facilities, either of which would result in significant cost to us as well as a delay of up to several years in obtaining approval for any affected product candidate. In addition, after approval of a product candidate for commercial use, our partners and contract manufacturers and any alternative contract manufacturer we and our partners may utilize will be subject to ongoing periodic inspection by the FDA and corresponding state and foreign agencies for compliance with cGMP regulations, similar foreign regulations and other regulatory standards. We and our partners do not have control over our contract manufacturers' compliance with these regulations and standards. Any failure by such third-party manufacturers or suppliers to comply with applicable regulations could result in sanctions being imposed (including fines, injunctions and civil penalties), failure of regulatory authorities to grant marketing approval of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecution.

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Materials necessary to manufacture our product candidates currently under development may not be available on commercially reasonable terms, or at all, which may delay our development and commercialization of these drugs.

Some of the materials necessary for the manufacture of our product candidates currently under development may, from time to time, be available either in limited quantities, or from a limited number of manufacturers, or both. We and/or our collaborators need to obtain these materials for our clinical trials and, potentially, for commercial distribution when and if we obtain marketing approval for these compounds. Suppliers may not sell us these materials at the time we need them or on commercially reasonable terms. If we and/or our collaborators are unable to obtain the materials needed for the conduct of our clinical trials, product testing and potential regulatory approval could be delayed, adversely impacting our ability to develop the product candidates. If it becomes necessary to change suppliers for any of these materials or if any of our suppliers experience a shutdown or disruption in the facilities used to produce these materials, due to technical, regulatory or other problems, it could significantly hinder or prevent manufacture of our drug candidates and any resulting products.

RISKS RELATED TO COMPETITION

The drug research and development industry is highly competitive, and we compete with some companies that have a broader range of capabilities and better access to resources than we do.

The pharmaceutical and biotechnology industries are characterized by rapid and continuous technological innovation. We compete with companies worldwide that are engaged in the research and discovery, licensing, development and commercialization of drug candidates, including, in the area of small molecule anti-cancer therapeutics, biotechnology companies such as Amgen, Inc., Ariad Pharmaceuticals, Inc., Astellas Pharma, Inc., Array BioPharma Inc., Astex Therapeutics, Cell Therapeutics, Inc., Curis, Inc., Cytokinetics, Inc., Exelixis, Inc., Evotec AG, GlaxoSmithKline, Gilead, FORMA Therapeutics, Incyte Corporation, Infinity Pharmaceuticals, Inc., Novartis, Pfizer, Roche and many others.

In addition, with respect to tivantinib, we are aware of a number of companies that are or may be pursuing a number of different approaches to MET inhibition, including Amgen Inc., AstraZeneca/ Hutchison MediPharma, AVEO Pharmaceuticals, Inc., Bristol-Myers Squibb Company, Exelixis, Inc., Incyte, Gilead, GlaxoSmithKline, Johnson & Johnson, Merck, Pfizer, Roche, Takeda and others. With respect to HCC, our lead indication, we are aware of a number of companies with products under development, including Abbott, Bayer, Bristol-Myers Squibb, Celgene, Dainippon Sumitomo, Eisai Co., Eli Lilly, Incyte, Merck, Novartis, Polaris Group, Roche, Servier, and 4SC AG. There can be no assurance that our competitors will not develop more effective or more affordable products or technology or achieve earlier product development and commercialization than ArQule, thus rendering our technologies and/or products obsolete, uncompetitive or uneconomical.

With respect to ARQ 087, we are aware of a number of companies that are or may be pursuing a number of different approaches to FGFR inhibition, including Novartis, Astra Zeneca, Bayer, Debiopharm, Boeheringer Ingelheim, Eisai, Incyte, Johnson & Johnson, Clovis, Ariad, Pfizer, BioClin and Five Prime. With respect to iCCA, our lead indication for ARQ 087, we are aware of a number of companies with products under development, including Novartis, Concordia Healthcare, Agios, Bristol Meyers Squibb, Bayer, Dainippon Sumitomo, Exelexis, Oncotherapy, Spectrum, Delcath and Cellact Pharma Gmbh.

Regarding ARQ 092, we are aware of a number of companies that are or may be pursuing a number of different approaches to AKT inhibition, including Merck, Astra Zeneca, Bayer, Norvartis, Eli Lilly, Rexahn. Moreover, numerous companies have pursued and are pursuing inhibitors of PI3K and mTOR, two kinases in the PI3K-AKT-mTOR pathway, including Idelalisib, an approved PI3K inhibitor, and Everolimus, Temsirolimus and Rapamycin, approved mTOR inhibitors.

Even if we are successful in bringing products to market, we face substantial competitive challenges in effectively marketing and distributing our products. Companies and research institutions, including large pharmaceutical companies with much greater financial resources and more experience in developing products, conducting clinical trials, obtaining FDA and foreign regulatory approvals and bringing new

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drugs to market are developing products within the field of oncology. Some of these entities already have competitive products on the market or product candidates in more advanced stages of development than we do. By virtue of having or introducing competitive products on the market before us, these entities may gain a competitive advantage. In addition, there may be product candidates of which we are not aware at an earlier stage of development that may compete with our product candidates. Some of our competitors have entered into collaborations with leading companies within our target markets.

We are in a rapidly evolving field of research. Consequently, our technology may be rendered non-competitive or obsolete by approaches and methodologies discovered by others, both before and after we have gone to market with our products. We also face competition from existing therapies that are currently accepted in the marketplace and from the impact of adverse events in our field that may affect regulatory approval or public perception.

We anticipate that we will face increased competition in the future as new companies enter the market and advanced technologies become available. If we are unable to successfully compete in our chosen field, we will not become profitable.

We may not be able to recruit and retain the scientists and management we need to compete.

Our success depends on our ability to attract, retain and motivate highly skilled scientific personnel and management, and our ability to develop and maintain important relationships with leading academic institutions, clinicians and scientists. We are highly dependent on our senior management and scientific staff, and the loss of the services of one or more of our other key employees could have an adverse effect on the successful completion of our clinical trials or the commercialization of our product candidates.

We compete intensely with pharmaceutical and biotechnology companies, including our collaborators, medicinal chemistry outsourcing companies, contract research and manufacturing organizations, and academic and research institutions in the recruitment of scientists and management. The shortage of personnel with experience in drug development could lead to increased recruiting, relocation and compensation costs, which may exceed our expectations and resources. If we cannot hire additional qualified personnel, the workload may increase for both existing and new personnel. If we are unsuccessful in our recruitment efforts, we may be unable to execute our strategy.

RISKS RELATED TO INTELLECTUAL PROPERTY

Our patents and other proprietary rights may fail to protect our business. If we are unable to adequately protect our intellectual property, third parties may be able to use our technology which could adversely affect our ability to compete in the market.

To be successful and compete, we must obtain and protect patents on our products and technology and protect our trade secrets. Where appropriate, we seek patent protection for certain aspects of the technology we are developing, but patent protection may not be available for some of our product candidates or their use, synthesis or formulations. The patent position of biotechnology firms is highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. No consistent policy has emerged from the U.S. Patent and Trademark Office or the courts regarding the breadth of claims allowed or the degree of protection afforded under many biotechnology patents. In addition, there is a substantial backlog of biotechnology patent applications at the U.S. Patent and Trademark Office. As a consequence of these factors, the approval or rejection of patent applications may take several years.

Also, the Leahy-Smith America Invents Act was signed into law on September 16, 2011, and became fully effective in March 2013. In general, the legislation attempts to address issues surrounding the enforceability of patents and the increase in patent litigation by, among other things, moving to a first inventor-to-file system, establishing new procedures for challenging patents and establishing different methods for invalidating patents. While we cannot predict what form any new patent reform regulations ultimately may take, final governmental rule-making and case law interpreting the new statute could introduce new substantive rules, procedures and case law bases for challenging patents, and certain reforms that make it easier for competitors to challenge our patents could have a material adverse effect on our business and prospects.

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We do not know whether our patent applications will result in issued patents. In addition, the receipt of a patent might not provide much practical protection. If we receive a patent with a narrow scope it will be easier for competitors to design products that do not infringe our patent. We cannot be certain that we will receive any additional patents, that the claims of our patents will offer significant protection for our technology, or that our patents will not be challenged, narrowed, invalidated or circumvented.

Competitors may interfere with our patent protection in a variety of ways. Competitors may claim that they invented the claimed invention before us. Competitors may also claim that we are infringing on their patents and that, therefore, we cannot practice our technology as claimed under our patents. Competitors may also contest our patents by showing the patent examiner that the invention was not original, was not novel or was obvious. In litigation, a competitor could claim that our issued patents are not valid for a number of reasons. If a court agrees, our patents could be narrowed, invalidated or rendered unenforceable, or we may be forced to stop using the technology covered by these patents or to license the technology from third parties. As a company, we have no meaningful experience with competitors interfering with our patents or patent applications and therefore may not have the experience we would need to aggressively protect our patents should such action become necessary.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the U.S. Many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. Many countries, including certain countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent. Compulsory licensing of life-saving drugs is also becoming increasingly popular in developing countries either through direct legislation or international initiatives. Such compulsory licenses could be extended to include some of our product candidates, which could limit our potential revenue opportunities. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor the aggressive enforcement of patent and other intellectual property protection, which makes it difficult to stop infringement.

Drug candidates we develop that are approved for commercial marketing by the FDA would be subject to the provisions of the Drug Price Competition and Patent Term Restoration Act of 1984, known as the “Hatch-Waxman Act.” The Hatch-Waxman Act provides companies with marketing exclusivity for varying time periods during which generic versions of a drug may not be marketed and allows companies to apply to extend patent protection for up to five additional years. It also provides a means for approving generic versions of a drug once the marketing exclusivity period has ended and all relevant patents have expired. The period of exclusive marketing, however, may be shortened if a patent is successfully challenged and defeated, which could reduce the amount of revenue we receive for such product.

Agreements we have with our employees, consultants and collaborators may not afford adequate protection for our trade secrets, confidential information and other proprietary information.

In addition to patent protection, we also rely on copyright and trademark protection, trade secrets, and know-how. It is unclear whether our trade secrets and know-how will prove to be adequately protected. To protect our trade secrets and know-how, we require our employees, consultants and advisors to execute agreements regarding the confidentiality and ownership of such proprietary information. We cannot guarantee, however, that these agreements will provide us with adequate protection against improper use or disclosure of confidential information and there may not be adequate remedies in the event of unauthorized use or disclosure. Our employees, consultants or advisors may unintentionally or willfully disclose our information to competitors. In addition, in some situations, these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants or advisors had or have previous employment or consulting relationships. Like patent litigation, enforcing a claim that a third party illegally obtained and is using our trade secrets is expensive and time-consuming and the outcome is unpredictable. In addition, courts outside the U.S. are sometimes less willing than our federal and state courts to protect trade secrets. Furthermore, others may independently develop substantially equivalent knowledge, methods and know-how. Our failure or inability to protect our proprietary information and techniques may inhibit or limit our ability to compete effectively or exclude certain competitors from the market.

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Our success will depend partly on our ability to operate without infringing upon or misappropriating the proprietary rights of others.

There are many patents in our field of technology and we cannot guarantee that we do not infringe on those patents or that we will not infringe on patents granted in the future. If a patent holder believes a product of ours infringes on its patent, the patent holder may sue us even if we have received patent protection for our technology.

If we do not prevail in litigation or if other parties have filed, or in the future should file, patent applications covering products and technologies that we have developed or intend to develop, we may have to obtain licenses from third parties, which may not be available on commercially reasonable terms, or at all, and may require us to pay substantial royalties or grant a cross-license to some of our patents to another patent holder. Additionally, we may have to change the formulation of a product candidate so that we do not infringe third- party patents. Such reformulation may be impossible to achieve or which may require substantial time and expense. If we are unable to cost-effectively redesign our products so they do not infringe a patent, we may be unable to sell some of our products. Any of these occurrences will result in lost revenues and profits for us.

The drug research and development industry has a history of patent and other intellectual property litigation, and we may be involved in costly intellectual property lawsuits.

The drug research and development industry has a history of patent and other intellectual property litigation, and we believe these lawsuits are likely to continue. Legal proceedings relating to intellectual property would be expensive, take significant time and divert management's attention from other business concerns. We face potential patent infringement suits by companies that control patents for drugs or potential drugs similar to our product candidates or other suits alleging infringement of their intellectual property rights. There could be issued patents of which we are not aware that our products and their use, whether as single agents or in combination with other products, infringe or patents that we believe we do not infringe that we are ultimately found to infringe. The publication of discoveries in the scientific or patent literature frequently occurs substantially later than the date on which the underlying discoveries were made and patent applications were filed. Because patent applications can take many years to issue, there may be currently pending applications of which we are unaware that may later result in issued patents that we infringe with our drug candidates or resulting products, and their use as single agents or in combination with other products. In addition, technology created under our research and development collaborations may infringe the intellectual property rights of third parties, in which case we may not receive milestone or royalty revenue from those collaborations.

If we do not prevail in an infringement lawsuit brought against us, we might have to pay substantial damages and we could be required to stop the infringing activity or obtain a license to use the patented technology or redesign our products so as not to infringe the patent. We may not be able to enter into licensing arrangements at a reasonable cost or effectively redesign our products. Any inability to secure licenses or alternative technology could delay the introduction of our products or prevent us from manufacturing or selling products.

RISKS RELATED TO EMPLOYEES, FACILITIES AND INFORMATION TECHNOLOGY

Our operations could be interrupted by damage to our laboratory facilities.

Certain of our operations are dependent upon the continued use of our specialized laboratories and equipment in Bedford, Massachusetts. Catastrophic events, including fires or explosions, could damage our laboratories, equipment, scientific data, work in progress or inventories of chemical compounds and biological materials and may materially interrupt our business. We employ safety precautions in our laboratory activities in order to reduce the likelihood of the occurrence of these catastrophic events; however, we cannot eliminate the chance that such an event will occur. Rebuilding our facilities could be time consuming and result in substantial delays in our development of products and in fulfilling our agreements with our collaborators.

Security breaches may disrupt our operations and adversely affect our operating results.

Our network security and data recovery measures and those of third parties with which we contract, may not be adequate to protect against computer viruses, cyber-attacks, break-ins, and similar disruptions

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from unauthorized tampering with our computer systems. The misappropriation, theft, sabotage or any other type of security breach with respect to any of our proprietary and confidential information that is electronically stored, including research or clinical data, could cause interruptions in our operations, and could result in a material disruption of our clinical activities and business operations, in addition to possibly requiring substantial expenditures of resources to remedy. This disruption could have a material adverse impact on our business, operating results and financial condition. Additionally, any break-in or trespass of our facilities that results in the misappropriation, theft, sabotage or any other type of security breach with respect to our proprietary and confidential information, including research or clinical data, or that results in damage to our research and development equipment and assets could have a material adverse impact on our business, operating results, and financial condition.

RISKS RELATED TO PRODUCT LIABILITY

If our use of chemical and biological materials and hazardous materials violates applicable laws or causes personal injury, we may be liable for damages.

Our drug discovery activities, including the analysis and synthesis of chemical compounds, involve the controlled use of chemicals, including flammable, combustible, toxic and radioactive materials that are potentially hazardous if misused. Federal, state and local laws and regulations govern our use, storage, handling and disposal of these materials. These laws and regulations include the Resource Conservation and Recovery Act, the Occupational Safety and Health Act, local fire and building codes, regulations promulgated by the Department of Transportation, the Drug Enforcement Agency and the Department of Energy, the Department of Health and Human Services, and the laws of Massachusetts where we conduct our operations. We may incur significant costs to comply with these laws and regulations in the future and current or future environmental laws and regulations may impair our research, development and production efforts. Notwithstanding our extensive safety procedures for handling and disposing of materials, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of an accident, our business could be disrupted and we could be liable for damages. Our liability may exceed our insurance coverage and our total assets and have a negative impact on our financial condition and results of operations.

We may be exposed to potential liability related to the development, testing or manufacturing of compounds we develop and our insurance coverage may not be sufficient to cover losses.

We are developing, clinically testing and manufacturing potential therapeutic products for use in humans. In connection with these activities, we could be liable if persons are injured or die while using these drugs. We may have to pay substantial damages and/or incur legal costs to defend claims resulting from injury or death, and we may not receive expected royalty or milestone payments if commercialization of a drug is limited or ended as a result of such claims. We have product liability and clinical trial insurance that contains customary exclusions and provides coverage per occurrence at levels, in the aggregate, which we believe are customary and commercially reasonable in our industry given our current stage of drug development. Our product liability insurance does not cover every type of product liability claim that we may face or loss we may incur and may not adequately compensate us for the entire amount of covered claims or losses or for the harm to our business reputation. Also, we may be unable to maintain our current insurance policies or obtain and maintain necessary additional coverage at acceptable costs, or at all.

RISKS RELATED TO OUR COMMON STOCK

Our stock price may be extremely volatile.

The trading price of our common stock has been highly volatile. As a result of this volatility, you may not be able to sell your common stock at or above your purchase price, if at all. We believe the trading price of our common stock will remain highly volatile and may fluctuate substantially due to factors such as:

- adverse results or delays in clinical trials;

- announcement of FDA approval or non-approval, or delays in the FDA review process, of our or our collaborators' product candidates or those of our competitors or actions taken by regulatory agencies with respect to our, our collaborators' or our competitors' clinical trials;

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- announcement of new products by us or our competitors;

- quarterly variations in our or our competitors' results of operations, including as a result of recognition of upfront licensing or other fees, the timing and amount of expenses incurred for clinical development, regulatory approval and commercialization of our product candidates;

- litigation, including intellectual property infringement lawsuits, involving us;

- financing transactions;

- developments in the biotechnology and pharmaceutical industries;

- the general performance of the equity markets and in particular the biopharmaceutical sector of the equity markets;

- departures of key personnel or board members;

- developments concerning current or future collaborations;

- FDA or international regulatory actions affecting our industry generally; and

- third-party reimbursement policies.

This volatility and general market declines in our industry over the past several years have affected the market prices of securities issued by many companies, often for reasons unrelated to their operating performance, and may adversely affect the price of our common stock. In the past, securities class action litigation has often been instituted following periods of volatility in the market price of a company's securities. A securities class action suit against us could result in potential liabilities, substantial costs and the diversion of management's attention and resources, regardless of the outcome of the action.

Some of our existing stockholders can exert control over us, and their interests could conflict with the best interests of our other stockholders.

Due to their combined stock holdings, our principal stockholders (stockholders holding more than 5% of our common stock), acting together, may be able to exert significant influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. In addition, this concentration of ownership may delay or prevent a change in control of our company, even when a change may be in the best interests of our stockholders. Furthermore, the interests of these stockholders may not always coincide with our interests as a company or the interests of other stockholders. Accordingly, these stockholders could cause us to enter into transactions or agreements that would not be widely viewed as beneficial.

If our officers, directors or principal stockholders sell substantial amounts of our common stock (including shares issued upon the exercise of options) in the public market, the market price of our common stock could fall. These sales also might make it more difficult for us to sell equity or equity-related securities in the future at a time and price

that we deem appropriate.

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

Provisions in our corporate charter and bylaws and Delaware law may discourage, delay or prevent an acquisition of our company, a change in control, or attempts by our stockholders to replace or remove members of our current Board of Directors. Because our Board of Directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our stockholders to replace current members of our management team. These provisions include:

- a Board of Directors having three classes of directors with a three-year term of office that expires as to one class each year, commonly referred to as a “staggered board”;

- a prohibition on actions by our stockholders by written consent;

- the inability of our stockholders to call special meetings of stockholders;

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- the ability of our Board of Directors to issue preferred stock without stockholder approval, which could be used to institute a “poison pill” that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our Board of Directors;

- limitations on the removal of directors; and

- advance notice requirements for director nominations and stockholder proposals.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner. As a result, it is difficult for a third party to acquire control of us without the approval of our Board of Directors and, therefore, mergers with and acquisitions of us that our stockholders may consider in their best interests may not occur.

Because we do not intend to pay dividends, stockholders will benefit from an investment in our common stock only if it appreciates in value.

We have never declared or paid any cash dividends on our common stock. We currently intend to retain our future earnings, if any, to finance the expansion of our business and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend entirely upon any future appreciation. There is no guarantee that our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

In January 2015, we entered into a lease agreement for a new headquarters facility of approximately 15,000 square feet. The lease commenced on May 1, 2015 for a term of five years and three months with an average annual rental rate of $455 thousand. See Note 5, “Property and Equipment” in the Notes to Financial Statements appearing in Item 8 in this Annual Report on Form 10-K.

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

ITEM 5.

MARKET FOR THE REGISTRANT'S COMMON STOCK, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

STOCK PERFORMANCE GRAPH

The following graph shows the cumulative total stockholder return on our common stock over the period from December 31, 2010 to December 31, 2015, as compared with that of the NASDAQ Stock Market Index (U. S. Companies) and the NASDAQ Biotechnology Index, based on an initial investment of $100 in each on December 31, 2010. Total stockholder return is measured by dividing share price change plus dividends, if any, for each period by the share price at the beginning of the respective period, and assumes reinvestment of dividends.

COMPARISON OF CUMULATIVE TOTAL RETURN OF ARQULE, INC.,
NASDAQ STOCK MARKET (U.S. COMPANIES) INDEX
AND NASDAQ BIOTECHNOLOGY INDEX

	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15
ArQule, Inc.	100.00	96.08	47.53	36.63	20.78	36.97
NASDAQ Market (U.S. Companies) Index	100.00	100.31	116.79	155.90	175.33	176.17
NASDAQ Biotechnology Index	100.00	112.08	148.27	246.09	330.75	369.67

ArQule's common stock is traded on the NASDAQ Global Market under the symbol "ARQL".

EQUITY COMPENSATION PLAN INFORMATION

(Amounts in thousands except per share amounts)

Plan Category	Number of Shares of Common Stock to be Issued Upon Exercise of Outstanding Options	Weighted-Average Exercise Price of Outstanding Options	Weighted-Average Remaining Contractual Term (in years)	Number of Shares of Common Stock Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by stockholders	8,305,950	$ 4.24	5.21	4,311,474
Equity compensation plans not approved by stockholders	—	$ —	—	—

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The following table sets forth, for the periods indicated, the range of the high and low sale prices for ArQule's common stock:

	HIGH	LOW
2014		
First Quarter	$ 2.92	$ 1.97
Second Quarter	2.08	1.29
Third Quarter	1.60	1.08
Fourth Quarter	1.45	1.04
2015		
First Quarter	$ 2.50	$ 1.05
Second Quarter	2.30	1.50
Third Quarter	2.12	1.42
Fourth Quarter	2.65	1.83
2016		
First Quarter (through February 15, 2016)	$ 2.19	$ 1.60

As of February 17, 2016, there were approximately 77 holders of record and approximately 6,201 beneficial stockholders of our common stock.

Dividend Policy

We have never paid cash dividends on our common stock and we do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain future earnings, if any, for use in our business.

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ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data have been derived from our audited historical financial statements, certain of which are included elsewhere in this Annual Report on Form 10-K. The following selected financial data should be read in conjunction with our financial statements and related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this Annual Report on Form 10-K.

The following data is in thousands, except per share data.

	YEAR ENDED DECEMBER 31,				
	2015	2014	2013	2012	2011
STATEMENT OF OPERATIONS AND COMPREHENSIVE LOSS DATA:					
Revenue:					
Research and development revenue(a)(b)	$ 11,239	$ 11,254	$ 15,914	$ 36,414	$ 47,310
Costs and expenses:					
Research and development(c)	15,561	22,271	27,555	33,966	45,011
General and administrative	9,830	12,154	12,836	13,852	13,373
Restructuring and other costs(d)(e)	—	1,099	650	—	—
Total costs and expenses	25,391	35,524	41,041	47,818	58,384
Loss from operations	(14,152)	(24,270)	(25,127)	(11,404)	(11,074)
Interest income	101	272	502	445	317
Interest expense	—	(35)	(32)	(26)	(25)
Other income(f)	277	642	57	113	20
Loss before income taxes	(13,774)	(23,391)	(24,600)	$ (10,872)	$ (10,762)
Benefit from income taxes	—	—	—	—	—
Net loss	(13,774)	(23,391)	(24,600)	(10,872)	(10,762)
Unrealized gain (loss) on marketable securities	13	(77)	(35)	108	1
Comprehensive loss	$ (13,761)	$ (23,468)	$ (24,635)	$ (10,764)	$ (10,761)
Basic and diluted net loss per share	$ (0.22)	$ (0.37)	$ (0.39)	$ (0.18)	$ (0.20)
Weighted average common shares outstanding—basic and diluted	62,808	62,627	62,480	59,821	52,778
Cash, cash equivalents and marketable securities(g)(h)	$ 38,772	$ 59,208	$ 74,695	$ 79,271	$ 68,168
Marketable securities-long term	—	2,058	20,391	51,328	40,475
	$ 38,772	$ 61,266	$ 95,086	$ 130,599	$ 108,643
Working capital(g)(h)	$ 28,661	$ 42,824	$ 53,883	$ 52,968	$ 23,299
Notes payable	—	—	1,700	1,700	1,700
Total assets	40,004	63,394	98,179	134,193	117,051
Total stockholders' equity (deficit)(g)(h)	29,179	40,545	60,626	81,029	29,729

(a)

The $20.5 million revenue decrease in 2013 compared with 2012 was primarily due to a revenue decrease of $15.5 million from our Daiichi Sankyo AKIPTM agreement that ended in November 2012.

(b)
In November 2011, we entered into a license agreement with Daiichi Sankyo for ARQ 092, an inhibitor of the AKT protein kinase discovered under our AKIPTM oncology drug discovery collaboration. As a result of our license agreement for this compound, we received a $10 million payment from Daiichi Sankyo in November 2011.

(c)
The $6.7 million decrease in research and development expense in 2015 was primarily due to lower labor related costs of $2.4 million from reduced headcount, outsourced clinical and product development costs of $1.7 million, facility costs of $1.9 million and lab expenses of $0.7 million.

The $5.3 million decrease in research and development expense in 2014 was primarily due to lower labor related costs of $4.2 million from our July 2013 and August 2014 restructurings and reduced lab
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expenses of $1.0 million. Other cost reductions in 2014 of $0.9 million were partially offset by a $0.8 million increase in outsourced clinical and product development costs.

The $6.4 million decrease in research and development expense in 2013 was primarily due to lower labor related costs of $1.7 million from attrition and $1.0 million from the July 2013 restructuring, $1.1 million lower outsourced clinical and product development costs principally related to our Phase 1 and 2 programs for tivantinib, reduced lab expenses of $0.8 million, lower professional fees of $0.5 million, and other cost reductions of $1.3 million.

The $11.0 million decrease in research and development expense in 2012 was primarily due to an $8.7 million decrease in outsourced clinical and product development costs related to our Phase 1 and 2 programs for tivantinib and pipeline programs. Other cost decreases include $1.0 million labor related costs from reduced headcount, $0.4 million for lab expenses, and $0.3 million for professional fees.

(d)

On July 30, 2014, we approved plans to restructure our operations to better align our human and financial resources with our primary focus on clinical stage development programs and to extend our cash runway beyond the anticipated time for achievement of key milestones, such as the completion of the METIV-HCC trial. Commencing on August 4, 2014, we began to reduce our workforce from 62 to approximately 40 employees by the end of the year. Most of this reduction came from our Discovery Group, which has been engaged primarily in early-stage, pre-clinical research. The costs associated with this action were comprised of severance payments of $662 thousand and benefits continuation costs of $74 thousand. In the year ended December 31, 2014, $319 thousand of these costs was paid and the remaining amount was paid by March 31, 2015. In addition, in the year ended December 31, 2014, we incurred non-cash charges of $83 thousand related to the modification of employee stock options, and $280 thousand for impairment of property and equipment impacted by the restructuring.

(e)

In July 2013, we implemented a focused reduction in our workforce of 26 positions, resulting in a remaining workforce of approximately 68 employees. This action was intended to align human and financial resources with our primary focus on clinical-stage development, while retaining our core discovery capabilities. The costs associated with this action were comprised of severance payments of $422 thousand and benefits continuation costs of $89 thousand all of which were paid by December 31, 2013. We also incurred non-cash charges of $139 thousand related to the modification of employee stock options.

(f)

Other income in 2015 includes a gain of $277 thousand from the sale of property and equipment.

Other income in 2014 includes a gain of $254 thousand upon the redemption of $2.1 million of auction rate securities at face value, and a gain of $388 thousand from the sale of property and equipment.

Other income in 2013, 2012 and 2011 includes a gain each year from the increase in fair value of our auction rate securities.

(g)

In April 2012, we completed a stock offering in which we sold 8,222,500 shares of common stock at a price of $7.30 per share for net proceeds of $56.3 million after commissions and offering expenses.

(h)

In January 2011, we completed a stock offering in which we sold 8,050,000 shares of common stock at a price of $6.15 per share for net proceeds of $46.8 million after commissions and offering expenses.

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

The following discussion should be read in conjunction with our financial statements and related notes contained in this report.

We are a biopharmaceutical company engaged in the research and development of innovative therapeutics to treat cancers and rare diseases. Our mission is to discover, develop and commercialize novel small molecule drugs in areas of high unmet need that will dramatically extend and improve the lives of our patients. These drugs target biological pathways implicated in a wide range of cancers and certain non-oncology indications. Our discovery and development efforts are guided, when possible, by an understanding of the role of biomarkers, which are indicators of a particular biological condition or process and may predict the clinical benefit of our compounds in defined patient populations. Our proprietary clinical-stage pipeline consists of four drug candidates, all of which are in targeted patient populations making ArQule a leader among companies our size in precision medicine.

ArQule has a long history of kinase drug discovery and development, having discovered and introduced eight kinase inhibitors into human clinical trials with a ninth about to enter the clinic. Our drug discovery efforts have been informed by our historical expertise in chemistry, our work in rational drug design and by our insight into kinase binding and regulation. We have applied this knowledge to produce significant chemical matter for a number of kinase targets and to build an extensive library of proprietary compounds with the potential to target multiple kinases in oncology and other therapeutic areas, such as rare diseases. We expect to bring further preclinical programs forward either directly or with collaborators and to interrogate our library against new targets beyond kinases.

Our lead product candidate is tivantinib (ARQ 197), an orally administered, small molecule inhibitor of the c-Met receptor tyrosine kinase ("MET") and its biological pathway. MET is a promising target for cancer therapy, based on its multiple roles in cancerous cell proliferation, tumor spread, new blood vessel formation and resistance to certain drug therapies. We and our partners, Daiichi Sankyo Co., Ltd. ("Daiichi Sankyo") and Kyowa Hakko Kirin Co., Ltd. ("Kyowa Hakko Kirin"), are implementing a worldwide clinical development program with tivantinib. Our strategy is to focus on the most promising indications within our clinical programs based upon continually generated and updated clinical and pre-clinical data. Our lead indication is liver cancer ("hepatocellular carcinoma" or "HCC"), and we are currently conducting two Phase 3 trials with our partners. We have also completed earlier-stage single agent and combination therapy trials and pre-clinical experiments with tivantinib and other anti-cancer agents that may provide data to support trials in additional indications.

Our most advanced ongoing clinical trial, the METIV-HCC trial, is a pivotal Phase 3 randomized, double-blind, controlled study of tivantinib as single agent therapy in previously treated patients with MET diagnostic-high, inoperable HCC conducted by Daiichi Sankyo and us. The primary endpoint is overall survival ("OS") in the intent-to-treat ("ITT") population, and the secondary endpoint is progression-free survival ("PFS") in the same population. We completed patient accrual in the METIV-HCC trial in December 2015 and have randomized over 300 patients at more than 100 clinical sites worldwide. We anticipate that a planned interim assessment for the trial, which is triggered when 60 percent of events occur, will take place by early in the second quarter of 2016. This trial is being conducted under a Special Protocol Assessment ("SPA") agreement with the U.S. Food and Drug Administration ("FDA").

In addition to METIV-HCC, a second Phase 3 clinical trial in HCC with tivantinib known as JET-HCC is ongoing in Japan. On February 4, 2014, Kyowa Hakko Kirin announced the initiation of this trial in Japanese patients with MET diagnostic-high, inoperable HCC previously treated with sorafenib. The trial is a randomized, double-blind placebo-controlled study to compare PFS in patients treated with tivantinib with those treated with placebo. Kyowa Hakko Kirin plans to enroll approximately 160 patients in this study.

We have licensed commercial rights to tivantinib for human cancer indications to Daiichi Sankyo in the U.S., Europe, South America and the rest of the world, excluding Japan and certain other Asian countries, where we have licensed commercial rights to Kyowa Hakko Kirin. Our agreements with these partners

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provide for possible future milestone payments, royalties on product sales, and development funding, in addition to significant payments that we have already received. To date we have received $100 million in upfront and milestone payments from Daiichi Sankyo, $15 million of which was related to the first patient enrolled in the METIV-HCC trial. That milestone was netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. To date, we have received $48 million in upfront and milestone payments from Kyowa Hakko Kirin.

We have collaborated with the National Cancer Institute ("NCI") through its Cancer Therapy Evaluation Program ("CTEP") to explore the clinical potential of tivantinib in a variety of tumor indications while we focus our internal efforts on the two Phase 3 programs in HCC. These CTEP-sponsored trials included Phase 2 single agent trials in prostate cancer (randomized), multiple myeloma, breast cancer and malignant mesothelioma, and Phase 2 combination therapy trials in kidney cancer (with or without erlotinib, randomized) and head and neck cancer (with or without cetuximab, randomized).

Our proprietary pipeline of product candidates is directed toward molecular targets and biological processes with demonstrated roles in the development of both human cancers and rare, non-oncology diseases. These product candidates include: ARQ 092, designed to inhibit the AKT serine/threonine kinase; ARQ 087, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor ("FGFR") family; and ARQ 761, a Beta lapachone analog being evaluated in investigator-sponsored testing as a promoter of NQO1-mediated programmed cancer cell necrosis. We expect to add to our proprietary pipeline with the initiation of a Phase 1 clinical trial in oncology with our next generation AKT inhibitor, ARQ 751, in the first half of 2016. Specific tumor types and biomarkers have been identified to guide our clinical testing, based on analyses of Phase 1a anti-cancer activity in humans, preclinical findings and scientific literature.

Under our agreement with the National Human Genome Research Institute of the NIH, a Phase 1 clinical trial investigating ARQ 092 as a potential treatment for Proteus syndrome, a rare overgrowth disorder caused by a mutation in the AKT 1 gene, began enrolling patients in November 2015. A Phase 1b clinical trial for ARQ 092 has completed enrollment in lymphoma and endometrial cancers and continues to enroll in cancers harboring AKT 1 and PI3K mutations. Thus far in this enriched cohort of the trial, we have observed five patients with confirmed responses, two of which had the same AKT 1 mutation which occurs in Proteus syndrome. Clinical development of ARQ 087 has advanced into Phase 2 for intrahepatic cholangiocarcinoma ("iCCA") following the observation of two confirmed partial responses in this patient population in the Phase 1 portion of the trial. Additional testing is on-going in solid tumors as part of a Phase 1b expansion cohort of this trial. ARQ 761 is currently in a Phase 1b clinical trial for solid tumors and Phase 1b/2 for pancreatic cancer.

On July 30, 2014, we approved plans to restructure our operations to better align our human and financial resources with our primary focus on clinical stage development programs and to extend our cash runway beyond the anticipated time frame for achievement of key milestones, such as the completion of the METIV-HCC trial. Commencing on August 4, 2014, we began to reduce our workforce from 62 to approximately 40 employees by the end of 2014. Most of this reduction came from our Discovery Group, which had been engaged primarily in early-stage, pre-clinical research. As a result of this near-term focus on our proprietary clinical pipeline, including ARQ 092 and ARQ 087, we will concentrate our discovery efforts on the development of a number of preclinical programs derived from our insights into kinase biology and library of proprietary compounds, as well as the enhancement and preservation of such library. We plan to achieve progress in these areas through greater reliance on academic and other collaborations and on outsourcing strategies.

We have incurred a cumulative deficit of approximately $482 million from inception through December 31, 2015. We recorded a net loss for 2013, 2014 and 2015 and expect a net loss for 2016.

Our revenue consists primarily of development funding from our alliances with Daiichi Sankyo and Kyowa Hakko Kirin. Revenue and expenses fluctuate from quarter to quarter based upon a number of factors, notably the timing and extent of our cancer-related research and development activities together with the length and outcome of our clinical trials.

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In May 2015, we entered into a Collaborative Research and Development Agreement with Beryllium Discovery Corp. ("Beryllium"). Pursuant to the agreement, we will jointly focus on the identification and preclinical development of inhibitors of PD-1 and PDL-1. We and Beryllium will each be responsible for our respective internal and outsourcing costs during pre-clinical development. Following lead optimization of any potential drug candidates, we and Beryllium will jointly decide whether to advance compounds into GLP/toxicology and clinical testing, initially on a shared cost basis, provided that we will have the right to advance compounds on our own should Beryllium vote against such advancement. The agreement also provides that we will be responsible for clinical development and commercialization of product candidates that are not out-licensed. Beryllium will have the right to participate financially throughout the program but will also have the option to opt out at certain times and receive a royalty. The agreement will terminate after the last payment obligation is satisfied, or prior to that upon 60-days' notice by either party.

On December 18, 2008, we entered into a license, co-development and co-commercialization agreement with Daiichi Sankyo to conduct research, clinical trials and commercialization of tivantinib in human cancer indications. The agreement provides for a $60 million cash upfront licensing payment from Daiichi Sankyo to us, which we received in December 2008, and an additional $560 million in potential development and sales milestone payments offset by our share of the Phase 3 costs. Upon commercialization, we will receive tiered, double-digit royalties from Daiichi Sankyo on net sales of tivantinib commensurate with the magnitude of the transaction. On November 3, 2015, the Company announced that it had exercised its option with Daiichi Sankyo to co-commercialize tivantinib in the United States (the "Co-Commercialization Option"), pursuant to the Agreement. Subject to the receipt of regulatory approvals, the first commercial indication for tivantinib under the Co-Commercialization Option is anticipated to be second line HCC. The parties have a prescribed period to conclude a co-commercialization agreement in accordance with the terms of the Agreement which is expected to occur in the late first quarter or early second quarter of 2016. If the METIV-HCC trial is successful, and tivantinib is approved in second line HCC, the Agreement provides that the Company will receive a total of $55 million in milestone payments for the official acceptance of drug approval applications by FDA and the European Medicines Agency ("EMA") in this first indication, plus an additional $100 million in combined milestones tied to receipt of commercialization regulatory approval by the FDA and the first commercial sale in the UK, Germany, France, Italy or Spain. These milestones, totaling $155 million, will be partially offset by Phase 3 costs owed to Daiichi Sankyo by the Company which the Company expects to total approximately $75 million to $85 million at the time of approval in the US or EU. The Agreement also provides that the Company will receive tiered double digit royalties on net sales of tivantinib throughout the territory. Given the anticipated commercial market for second line HCC, the Company expects to earn royalties on net sales for this indication at the baseline contractual rate of 20 percent.

We and Daiichi Sankyo will share equally the costs of Phase 2 and Phase 3 clinical studies, with our share of Phase 3 costs payable solely from milestone and royalty payments by Daiichi Sankyo.

The dosing of the first patient in the Phase 3 MARQUEE clinical trial of tivantinib in NSCLC, announced in January 2011, triggered the payment of a $25 million development milestone from Daiichi Sankyo that was received in February 2011. Revenue for this agreement is recognized using the contingency-adjusted performance model. Through September 30, 2012, revenue was recognized based upon an estimated development period through December 2013. As a result of the October 2012 decision to discontinue the MARQUEE trial, the development period as of October 1, 2012 was extended to June 2015. Commencing with the fourth quarter of 2012 and through the third quarter of 2013 revenue was recognized over that development period. In the fourth quarter of 2013, following a recommendation by the Data Monitoring Committee that the METIV-HCC trial continue with patients receiving a lower dose of tivantinib than the dose originally employed in the trial, we reviewed the estimated development period and extended it to June 2016.

Under the terms of our tivantinib collaboration agreement with Daiichi Sankyo we share development costs equally with our share of Phase 3 costs funded solely from milestones and royalties. In each quarter the tivantinib collaboration costs we incur are compared with those of Daiichi Sankyo. If our costs for the quarter exceed Daiichi Sankyo's, we recognize revenue on the amounts due to us under the contingency adjusted performance model. Revenue is calculated on a pro-rata basis using the time elapsed from inception of the agreement over the estimated duration of the development period under the agreement. If

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our costs for the quarter are less than those of Daiichi Sankyo, we report the amount due to Daiichi Sankyo as contra-revenue in that quarter. To the extent that our share of Phase 3 collaboration costs exceeds the amount of milestones and royalties received, that excess is netted against future milestones and royalties if and when earned and is not reported as contra-revenue.

Our cumulative share of the Daiichi Sankyo Phase 3 costs through December 31, 2015 totaled $101.4 million. We received a milestone of $25 million in February 2011 upon enrolling the first patient in the MARQUEE trial, the cash proceeds of which were subsequently applied to our share of Phase 3 collaboration costs. On January 31, 2013, we announced that the first patient had been enrolled in the pivotal Phase 3 METIV trial of tivantinib, entitling us to a $15 million milestone. That $15 million milestone was also netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. Our cumulative share of Phase 3 collaboration costs has exceeded the amount of milestones received through December 31, 2015 by $61.4 million which will be netted against future milestones and royalties, if any, when earned and has not been reported as contra-revenue.

In 2015, we recognized net research and development revenue of $0.1 million related to our non-Phase 3 tivantinib collaboration costs which included $0.2 million of revenue and contra-revenue of $0.1 million. In 2014, we recognized net research and development revenue of $0.2 million related to our non-Phase 3 tivantinib collaboration costs which included $0.4 million of revenue and contra-revenue of $0.2 million. In 2013, we recognized net research and development contra-revenue of $0.4 million related to our non-Phase 3 tivantinib collaboration costs which included contra-revenue of $0.7 million and $0.3 million of revenue.

On April 27, 2007, we entered into an exclusive license agreement with Kyowa Hakko Kirin to develop and commercialize tivantinib in Japan and parts of Asia. The agreement includes $123 million in upfront and potential development milestone payments from Kyowa Hakko Kirin to ArQule, including $30 million cash upfront licensing payments that we received in 2007. In addition to the upfront and possible development milestone payments totaling $123 million, the Company will be eligible for future milestone payments based on the achievement of certain levels of net sales. To date, we have received $48 million in upfront and milestones payments.

The Company will recognize the payments, if any, as revenue in accordance with its revenue recognition policies. As of December 31, 2015, the Company has not recognized any revenue from these potential sales milestone payments, and there can be no assurance that it will do so in the future. Revenue for this agreement is recognized using the contingency-adjusted performance model with an estimated development period through April 2016.

Upon commercialization, ArQule will receive tiered royalties in the mid-teen to low-twenty percent range from Kyowa Hakko Kirin on net sales of tivantinib. Kyowa Hakko Kirin will be responsible for all clinical development costs and commercialization of the compound in certain Asian countries, consisting of Japan, China (including Hong Kong), South Korea and Taiwan.

LIQUIDITY AND CAPITAL RESOURCES

	December 31,			% increase (decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
	(in millions)				
Cash, cash equivalents and marketable securities short-term	$ 38.8	$ 59.2	$ 74.7	(35)%	(21)%
Marketable securities long-term	—	2.1	20.4	(100)%	(90)%
Notes payable	—	—	1.7	—	(100)%
Working capital	28.7	42.8	53.9	(33)%	(21)%

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	Year Ended December 31,		
	2015	2014	2013
	(in millions)		
Cash flow from:			
Operating activities	$ (22.2)	$ (31.8)	$ (33.7)
Investing activities	23.5	30.3	34.6
Financing activities	0.1	(1.6)	0.3

Cash flow from operating activities. Our uses of cash for operating activities have primarily consisted of salaries and wages for our employees, facility and facility-related costs for our offices and laboratories, fees paid in connection with preclinical and clinical studies, laboratory supplies and materials, and professional fees. The sources of our cash flow from operating activities have consisted primarily of payments received from our collaborators for services performed or upfront payments for future services. For each of the years ended December 31, 2015, 2014, and 2013 our net use of cash of $22.2 million, $31.8 million, and $33.7 million, respectively was primarily driven by the difference between payments for operating expenses and cash receipts from our collaborators.

Cash flow from investing activities. Our net cash provided by investing activities of $23.5 million in 2015 was comprised of net maturities of marketable securities of $23.5 million, and proceeds from the sale of property and equipment of $0.3 million partially offset by purchases of property and equipment of $0.3 million. Our net cash provided by investing activities of $30.3 million in 2014 was comprised of net maturities of marketable securities of $29.8 million and proceeds from the sale of property and equipment of $0.5 million. Our net cash provided by investing activities of $34.6 million in 2013 was primarily comprised of net maturities of marketable securities. The composition and mix of cash, cash equivalents and marketable securities may change frequently as a result of the Company's constant evaluation of conditions in financial markets, the maturity of specific investments, and our near term liquidity needs.

Our cash equivalents and marketable securities typically include commercial paper, money market funds, and U.S. Treasury bill funds, which have investment grade ratings. Our cash equivalents and our portfolio of marketable securities are subject to market risk due to changes in interest rates. Fixed rate interest securities may have their market value adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectation due to changes in interest rates or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates. ArQule's marketable securities portfolio did not include any investments in auction rate securities at December 31, 2015.

Cash flow from financing activities. Our net cash provided by financing activities of $0.1 million in the year ended December 31, 2015 consisted of cash inflows from employee stock plan purchases.

Our net cash used in financing activities of $1.6 million in the year ended December 31, 2014 consisted of payment of notes payable of $1.7 million and cash inflows of $0.1 million from the exercise of stock options and employee stock plan purchases.

Our net cash provided by financing activities of $0.3 million in the year ended December 31, 2013 consisted of cash inflows from the exercise of stock options and employee stock plan purchases.

Our cash requirements may vary materially from those now planned depending upon the results of our drug discovery and development strategies, our ability to enter into additional corporate collaborations and the terms of such collaborations, results of research and development, unanticipated required capital expenditures, competitive and technological advances, acquisitions and other factors. We cannot guarantee that we will be able to develop any of our drug candidates into a commercial product. It is likely we will need to raise additional capital or incur indebtedness to continue to fund our operations in the future. Our ability to raise additional funds will depend on financial, economic and market conditions, and due to global capital and credit market conditions or for other reasons, we may be unable to raise capital when needed, or on terms favorable to us. If necessary funds are not available, we may have to delay, reduce the scope of, or eliminate some of our development programs, potentially delaying the time to market for any of our product candidates.

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In July 2013, we implemented a focused reduction in our workforce of 26 positions, resulting in a remaining workforce of approximately 68 employees. This action was intended to align human and financial resources with our primary focus on clinical-stage development, while retaining our core discovery capabilities. The costs associated with this action were comprised of severance payments of $422 thousand and benefits continuation costs of $89 thousand all of which were paid by December 31, 2013. We also incurred non-cash charges of $139 thousand related to the modification of employee stock options. The restructuring actions for which charges were incurred in the year ended December 31, 2013 resulted in cost savings of approximately $4.0 million in 2014.

On July 30, 2014, we approved plans to restructure our operations to better align our human and financial resources with our primary focus on clinical stage development programs and to extend our cash runway beyond the anticipated time for achievement of key milestones, such as the completion of the METIV-HCC trial. Commencing on August 4, 2014, we began to reduce our current workforce from 62 to approximately 40 employees by the end of the year. Most of this reduction came from our Discovery Group, which has been engaged primarily in early-stage, pre-clinical research. The costs associated with this action were comprised of severance payments of $662 thousand and benefits continuation costs of $74 thousand. In addition, in the year ended December 31, 2014, we incurred non-cash charges of $83 thousand related to the modification of employee stock options, and $280 thousand for impairment of property and equipment impacted by the restructuring. In the year ended December 31, 2014, $319 of these costs was paid and the remaining amount of $417 was paid by March 31, 2015. The restructuring actions for which charges were incurred in the year ended December 31, 2014 resulted in annual cost savings of approximately $3.4 million in 2015.

On February 26, 2016 the Company entered into definitive stock purchase agreements with certain institutional and accredited investors for the sale of approximately 8,030,000 shares of our common stock and non-transferable options to purchase up to approximately 3,570,000 shares of our common stock for aggregate proceeds of approximately $15.3 million. Each option is exercisable for $2.50 per share, and if all options were to be exercised it would result in additional proceeds of approximately $8.9 million. All options will expire on the first anniversary of a “Regulatory Event,” which we define as the public announcement by us of the outcome of the pre-planned interim assessment to be conducted by the data monitoring committee of the METIV-HCC trial as set forth in the Special Protocol Assessment with the United States Food and Drug Administration.

In light of the approximately $15.3 million to be received from the February 26, 2016 stock purchase agreements, we anticipate that our cash, cash equivalents and marketable securities on hand at December 31, 2015, financial support from our collaboration agreements, and savings from our workforce reduction described above, will be sufficient to finance our working capital and capital requirements into 2018.

Our contractual obligations were comprised of the following as of December 31, 2015 (in thousands):

	Payment due by period				
Contractual Obligations	Total	Less than 1 year	1–3 years	3–5 years	More than 5 years
Operating lease obligations	$ 2,296	$ 528	$ 1,472	$ 296	$ —
Purchase obligations	3,273	3,273	—	—	—
Total	$ 5,569	$ 3,801	$ 1,472	$ 296	$ —

In January 2015, we entered into a lease agreement for a new headquarters facility. The lease commenced on May 1, 2015 for a term of five years and three months with an average annual rental rate of $455 thousand. The obligations for this new facility are included in the table above.

Purchase obligations are comprised primarily of non-cancelable outsourced preclinical and clinical trial expenses, product development and other costs to support the Company’s ongoing research and development efforts. Under our tivantinib collaboration with Daiichi Sankyo, our share of Phase 3 costs are payable solely from future milestones and royalties, if any. As of December 31, 2015 our portion of these costs was $61.4 million and is excluded from the table above. These costs are netted against any future milestones and royalties due to us, if any. Daiichi Sankyo has the right to offset future milestone and royalty payments by this amount.

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CRITICAL ACCOUNTING POLICIES AND ESTIMATES

A "critical accounting policy" is one which is both important to the portrayal of the Company's financial condition and results and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Management believes the following are critical accounting policies. For additional information, please see the discussion of our significant accounting policies in Note 2 to the Financial Statements included in Item 8 of this Form 10-K.

Research and Development Revenue

Research and development revenue is generated primarily through collaborative research and development agreements. The terms of the agreements may include nonrefundable upfront payments, funding for research and development, milestone payments and royalties on any product sales derived from collaborations.

The Company adopted the FASB issued ASU No. 2010-17, Revenue Recognition—Milestone Method on a prospective basis on January 1, 2011. The decision to use the milestone method of revenue recognition is a policy election. The milestone method may impact any new collaboration agreements or material modifications to existing agreements, in the event we elect the policy of utilizing the milestone method to recognize substantive milestones.

Research and development payments associated with our collaboration agreements in effect prior to January 1, 2011 are recognized as research and development revenue using the contingency adjusted performance model. Under this model, when payments are earned, revenue is immediately recognized on a pro-rata basis in the period we achieve the milestone based on the time elapsed from inception of the agreement to the time the milestone is earned over the estimated duration of the development period under the agreement. Thereafter, the remaining portion of the milestone payment is recognized on a straight-line basis over the remaining estimated development period under the agreement. This estimated development period may ultimately be shorter or longer depending upon the outcome of the development work, resulting in accelerated or deferred recognition of the development revenue. Royalty payments will be recognized as revenue when earned. The costs associated with satisfying research and development contracts are included in research and development expense as incurred.

For our tivantinib collaboration with Daiichi Sankyo, we compare the collaboration costs we incur with those of Daiichi Sankyo each quarter. If our costs for the quarter exceed Daiichi Sankyo's we recognize revenue on the amounts due to us under the contingency adjusted performance model. Revenue is calculated on a pro-rata basis using the time elapsed from inception of the agreement over the estimated duration of the development period under the agreement. If our costs for the quarter are less than those of Daiichi Sankyo's, we report the amount due to Daiichi Sankyo as contra-revenue in that quarter. Amounts recognized as contra-revenue are netted against our tivantinib Daiichi Sankyo research and development revenue. To the extent that our share of Phase 3 collaboration costs exceeds the amount of milestones and royalties received, that excess is netted against future milestones and royalties if and when earned and is not reported as contra-revenue.

On November 10, 2011, we and Daiichi Sankyo announced the execution of a license agreement for the development of a new AKT inhibitor, ARQ 092. The license agreement provided exclusive rights to Daiichi Sankyo for the development, manufacturing and marketing of ARQ 092 on a worldwide basis. Following the termination of this agreement, ARQ 092 has become our proprietary asset, and Daiichi Sankyo has no further financial or other obligations or rights related to this program. Revenue for this agreement was recognized using Financial Accounting Standards Board Accounting Standards Update No. 2009-13, Multiple-Deliverable Revenue Arrangements ("ASU 2009-13"). Under ASU 2009-13 all undelivered items under an agreement are divided into separate units of accounting based on whether the deliverable provides stand-alone value to the licensee. The Company determined the best estimate selling price (BESP) for each unit of accounting based upon management's judgment and including factors such as discounted cash flows, estimated direct expenses and other costs and probability of successful outcome of clinical trials.

Stock-Based Compensation

Our stock-based compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense over the employees' requisite service period (generally the vesting

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period of the equity grant). We estimate the fair value of stock options using the Black-Scholes valuation model. Key input assumptions used to estimate the fair value of stock options include the exercise price of the award, expected option term, expected volatility of our stock over the option's expected term, risk-free interest rate over the option's expected term, and the expected annual dividend yield. We believe that the valuation technique and approach utilized to develop the underlying assumptions are appropriate in calculating the fair values of our stock option grants.

Cash Equivalents and Marketable Securities

We generally classify our marketable securities as available-for-sale at the time of purchase and re-evaluate such designation as of each balance sheet date. We classify our investments as either current or long-term based upon the investments' contractual maturities and our ability and intent to convert such instruments to cash within one year. We report available-for-sale investments at fair value as of each balance sheet date and include any unrealized gains and, to the extent deemed temporary, unrealized losses in stockholders' equity. Realized gains and losses are determined using the specific identification method and are included in other income in the statement of operations and comprehensive loss.

We conduct quarterly reviews to determine the fair value of our investment portfolio and to identify and evaluate each investment that has an unrealized loss, in accordance with the meaning of other-than-temporary impairment and its application to certain investments. An unrealized loss exists when the current fair value of an individual security is less than its amortized cost basis. In the event that the cost basis of a security exceeds its fair value, we evaluate, among other factors, the duration of the period that, and extent to which, the fair value is less than cost basis, the financial health of and business outlook for the issuer, including industry and sector performance, and operational and financing cash flow factors, overall market conditions and trends, our intent to sell the investment and if it is more likely than not that we would be required to sell the investment before its anticipated recovery. Unrealized losses on available-for-sale securities that are determined to be temporary, and not related to credit loss, are recorded in accumulated other comprehensive income loss.

For available-for-sale debt securities with unrealized losses, we perform an analysis to assess whether we intend to sell or whether we would more likely than not be required to sell the security before the expected recovery of the amortized cost basis. Where we intend to sell a security, or may be required to do so, the security's decline in fair value is deemed to be other-than-temporary and the full amount of the unrealized loss is reflected in the statement of operations and comprehensive loss as an impairment loss.

Regardless of our intent to sell a security, we perform additional analysis on all securities with unrealized losses to evaluate losses associated with the creditworthiness of the security. Credit losses are identified where we do not expect to receive cash flows sufficient to recover the amortized cost basis of a security.

RESULTS OF OPERATIONS

The following are the results of operations for the years ended December 31, 2015, 2014 and 2013:

Revenue

				% increase (decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
	(in millions)				
Research and development revenue	$ 11.2	$ 11.3	$ 15.9	—%	(29)%

2015 as compared to 2014: Research and development revenue in 2015 and 2014 includes revenue from the Daiichi Sankyo tivantinib development agreement and the Kyowa Hakko Kirin exclusive license agreement. The slight revenue decrease in 2015 was from our Daiichi Sankyo tivantinib program.

2014 as compared to 2013: Research and development revenue in 2014 and 2013 includes revenue from the Daiichi Sankyo tivantinib development agreement and the Kyowa Hakko Kirin exclusive license agreement. During 2013 we also recognized revenue from the license agreement with Daiichi Sankyo for the development of ARQ 092 and from a one-time research project. The $4.6 million revenue decrease in 2014

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was primarily due to revenue decreases of $2.2 million from our Daiichi Sankyo tivantinib program due to a change in the estimated development period in Q4 2013, $1.2 million from our Daiichi Sankyo ARQ 092 agreement that ended in June 2013 and $1.7 million of other revenue from a one-time research project that was completed in 2013. These decreases were partially offset by lower contra-revenue of $0.5 million.

Under the terms of our tivantinib collaboration agreement with Daiichi Sankyo we share development costs equally with our share of Phase 3 costs funded solely from milestones and royalties, if any. In each quarter the tivantinib collaboration costs that we incur are compared with those of Daiichi Sankyo. If our costs for the quarter exceed Daiichi Sankyo's, we recognize revenue on the amounts due to us under the contingency adjusted performance model. Revenue is calculated on a pro-rata basis using the time elapsed from inception of the agreement over the estimated duration of the development period under the agreement. If our costs for the quarter are less than those of Daiichi Sankyo's, we report the amount due to Daiichi Sankyo as contra-revenue in that quarter. To the extent that our share of Phase 3 collaboration costs exceeds the amount of milestones and royalties received, that excess is netted against future milestones and royalties if and when earned and is not reported as contra-revenue.

Revenue for this agreement is recognized using the contingency-adjusted performance model. Through September 30, 2012, revenue was recognized based upon an estimated development period through December 2013. As a result of the October 2012 decision to discontinue the MARQUEE trial, the development period as of October 1, 2012 was extended to June 2015. Commencing with the fourth quarter of 2012 and through the third quarter of 2013 revenue was recognized over that development period.

In the fourth quarter of 2013, following a recommendation by the Data Monitoring Committee that the METIV-HCC trial continue with patients receiving a lower dose of tivantinib than the dose originally employed in the trial, we reviewed the estimated development period and extended it to June 2016. Under the previously estimated development period revenue for this agreement revenue was expected to be approximately $2.1 million in the fourth quarter of 2013, excluding contra-revenue. Under the revised development period revenue for this agreement revenue was $1.3 million in the fourth quarter of 2013 excluding contra-revenue, resulting in a reduction of $0.8 million.

Our cumulative share of the Daiichi Sankyo Phase 3 costs through December 31, 2015 totaled $101.4 million. We received a milestone of $25 million in February 2011 upon enrolling the first patient in the MARQUEE trial, the cash proceeds of which were subsequently applied to our share of Phase 3 collaboration costs. On January 31, 2013, we announced that the first patient had been enrolled in the pivotal Phase 3 METIV trial of tivantinib, entitling us to a $15 million milestone. That $15 million milestone was also netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. Our cumulative share of Phase 3 collaboration costs has exceeded the amount of milestones received through December 31, 2015 by $61.4 million which will be netted against future milestones and royalties, if any, when earned and has not been reported as contra-revenue.

Research and development

				% increase (decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
	(in millions)				
Research and development	$ 15.6	$ 22.3	$ 27.6	(30)%	(19)%

2015 as compared to 2014: The $6.7 million decrease in research and development expense in 2015 was primarily due to lower labor related costs of $2.4 million from reduced headcount, decreased outsourced clinical and product development costs of $1.7 million, facility costs of $1.9 million and lab expenses of $0.7 million. At December 31, 2015, we had 21 employees dedicated to our research and development program, down from 23 employees at December 31, 2014.

2014 as compared to 2013: The $5.3 million decrease in research and development expense in 2014 was primarily due to lower labor related costs of $4.2 million from our July 2013 and August 2014 restructurings and reduced lab expenses of $1.0 million. Other cost reductions in 2014 of $0.9 million were partially offset by a $0.8 million increase in outsourced clinical and product development costs. At December 31, 2014, we had 23 employees dedicated to our

research and development program, down from 43 employees at December 31, 2013.

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Overview

Our research and development expense consists primarily of salaries and related expenses for personnel, costs of contract manufacturing services, costs of facilities and equipment, fees paid to professional service providers in conjunction with our clinical trials, fees paid to research organizations in conjunction with pre-clinical animal studies, costs of materials used in research and development, consulting, license, and sponsored research fees paid to third parties and depreciation of associated laboratory equipment. We expect that our research and development expense will remain significant as we continue to develop our portfolio of oncology and rare disease programs.

We have not accumulated and tracked our internal historical research and development costs or our personnel and personnel-related costs on a program-by-program basis. Our employee and infrastructure resources are allocated across several projects, and many of our costs are directed to broadly applicable research endeavors. As a result, we cannot state the costs incurred for each of our programs on a program-by-program basis.

The expenses incurred by us to third parties for pre-clinical and clinical trials in the current year and since inception of our lead clinical stage program were as follows (in millions):

Oncology program	Current status	Year Ended December 31, 2015	Program-to-date
Met program—Tivantinib	Phase 3	$ 0.8	$ 84.6

Under the terms of our tivantinib collaboration agreement with Daiichi Sankyo we share development costs equally with our share of Phase 3 costs funded solely from milestones and royalties. Our cumulative share of Phase 3 collaboration costs has exceeded the amount of milestones received through December 31, 2015 by $61.4 million and is not reflected in the above table.

Our future research and development expenses in support of our current and future oncology programs will be subject to numerous uncertainties in timing and cost to completion. We test potential products in numerous pre-clinical studies for safety, toxicology, and efficacy. We may conduct multiple clinical trials for each product. As we obtain results from trials, we may elect to discontinue or delay clinical trials for certain products in order to focus our resources on more promising products. Completion of clinical trials may take several years or more, and the length of time generally varies substantially according to the type, complexity, novelty, and intended use of a product. It is not unusual for the pre-clinical and clinical development of each of these types of products to take nine years or more, and for total development costs to exceed $500 million for each product.

We estimate that clinical trials of the type generally needed to secure new drug approval are typically completed over the following timelines:

Clinical Phase	Estimated Completion Period
Phase 1	1–2 years
Phase 2	2–3 years
Phase 3	2–4 years

The duration and 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, the following:

- the number of clinical sites included in the trials;
- the length of time required to enroll suitable patients;
- the number of patients that ultimately participate in the trials;
- the duration of patient follow-up to ensure the absence of long-term product-related adverse events; and

- the efficacy and safety profile of the product.

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An element of our business strategy is to pursue the research and development of a broad pipeline of products. This is intended to allow us to diversify the risks associated with our research and development expenditures. As a result, we believe our future capital requirements and future financial success do not substantially depend on any one product. To the extent we are unable to build and maintain a broad pipeline of products, our dependence on the success of one or a few products increases.

Our strategy includes entering into alliance arrangements with third parties to participate in the development and commercialization of our products, such as our collaboration agreements with Daiichi Sankyo and Kyowa Hakko Kirin. In the event that third parties have control over the clinical trial process for a product, the estimated completion date would be under control of that third party rather than under our control. We cannot forecast with any degree of certainty whether our products will be subject to future collaborative arrangements or how such arrangements would affect our development plans or capital requirements.

As a result of the uncertainties discussed above, we make significant estimates in determining the duration and completion costs of our oncology programs or when and to what extent we will receive cash inflows from the commercialization and sale of a product. Our inability to complete our oncology programs in a timely manner or our failure to enter into appropriate collaborative agreements could significantly increase our capital requirements and could adversely impact our liquidity. These uncertainties could force us to seek additional, external sources of financing from time-to-time in order to continue with our product development strategy. Our inability to raise additional capital, or to do so on terms reasonably acceptable to us, would jeopardize the future success of our business.

General and administrative

				% increase (decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
	(in millions)				
General and administrative	$ 9.8	$ 12.2	$ 12.8	(19)%	(5)%

2015 compared to 2014: General and administrative expense in 2015 decreased primarily due to lower labor related costs from reduced headcount of $0.7 million and lower facility costs of $1.5 million. General and administrative headcount was 15 at December 31, 2015 down from 17 at December 31, 2014.

2014 compared to 2013: General and administrative expense in 2014 decreased primarily due to lower labor related costs from our July 2013 and August 2014 restructurings. General and administrative headcount was 17 at December 31, 2014 and 21 at December 31, 2013.

Restructuring and other costs

On July 30, 2014, we approved plans to restructure our operations to better align our human and financial resources with our primary focus on clinical stage development programs and to extend our cash runway beyond the anticipated time for achievement of key milestones, such as the completion of the METIV-HCC trial. Commencing on August 4, 2014, we began to reduce our workforce from 62 to approximately 40 employees by the end of the year. Most of this reduction came from our Discovery Group, which has been engaged primarily in early-stage, pre-clinical research. The costs associated with this action were comprised of severance payments of $662 thousand and benefits continuation costs of $74 thousand. In the year ended December 31, 2014, $319 thousand of these costs was paid and the remaining amount of $417 thousand was paid by March 31, 2015. In addition, in the year ended December 31, 2014, we incurred non-cash charges of $83 thousand related to the modification of employee stock options, and $280 thousand for impairment of property and equipment impacted by the restructuring. The restructuring actions for which charges were incurred in the year ended December 31, 2014 resulted in annual cost savings of approximately $3.4 million in 2015.

In July 2013, we implemented a focused reduction in our workforce of 26 positions, resulting in a remaining workforce of approximately 68 employees. This action was intended to align human and financial resources with our primary focus on clinical-stage development, while retaining our core discovery capabilities. The costs associated with this action were comprised of severance payments of $422 thousand

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and benefits continuation costs of $89 thousand all of which were paid by December 31, 2013. We also incurred non-cash charges of $139 thousand related to the modification of employee stock options. The restructuring actions for which charges were incurred in the year ended December 31, 2013 resulted in cost savings of approximately $4.0 million in 2014.

Interest income, interest expense and other income

				% increase (decrease)	
	2015	2014	2013	2014 to 2015	2013 to 2014
	(in thousands)				
Interest income	$ 101	$ 272	$ 502	(63)%	(46)%
Interest expense	—	(35)	(32)	(100)%	9%
Other income	277	642	57	(57)%	1,026%

Interest income is comprised of interest income derived from our portfolio of cash, cash equivalents and investments. Interest income decreased in 2015 and 2014 primarily due to a decrease in our investment portfolio. Interest expense was incurred in 2014 and 2013 on our notes payable. Other income in 2015 includes a gain of $277 thousand from the sale of property and equipment. Other income in 2014 includes a gain of $254 thousand upon the redemption of $2.1 million of auction rate securities at face value, and a gain of $388 thousand from the sale of property and equipment. Other income in 2013 includes a gain of $57 thousand from the increase in fair value of our auction rate securities.

Provision for income taxes

There was no current or deferred tax expense for the years ended December 31, 2015, 2014 or 2013 due to our loss before income taxes and our valuation allowance. We have recorded a full valuation allowance against our deferred tax assets based upon the weight of available evidence, as it is more likely than not that the deferred tax assets will not be realized.

The American Taxpayer Relief Act of 2012 (“ATR Act”) was enacted on January 2, 2013 which, among other things, provided a retroactive two-year extension of the U.S. research and development tax credits that had previously expired on December 31, 2011. We recorded the benefit from these credits in the first quarter of calendar year 2013 as a result of the enactment of the ATR Act. We recorded a benefit related to 2012 Research Credit of approximately $1,231,000 and a full valuation allowance, resulting in a net benefit of zero.

RECENT ACCOUNTING PRONOUNCEMENTS

For a discussion of new accounting pronouncements please read Note 2, Summary of Significant Accounting Policies to our financial statements included in this report.

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ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We own financial instruments that are sensitive to market risk as part of our investment portfolio. We have implemented policies regarding the amount and credit ratings of investments. Our investment portfolio is used to preserve our capital until it is used to fund operations, including our research and development activities. Our investments are evaluated quarterly to determine the fair value of the portfolio.

Our cash equivalents and marketable securities typically include commercial paper, money market funds, and U.S. Treasury bill funds that have investment grade ratings.

Our cash equivalents and our portfolio of marketable securities are subject to market risk due to changes in interest rates. Fixed rate interest securities may have their market value adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectation due to changes in interest rates or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates. Based on the type of securities we hold, we do not believe a change in interest rates would have a material impact on our financial statements. If interest rates were to increase or decrease by 1%, this would not result in a material change in the fair value of our investment portfolio.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of ArQule, Inc.,

In our opinion, the accompanying balance sheets and the related statements of operations and comprehensive loss, of stockholders' equity, and of cash flows present fairly, in all material respects, the financial position of ArQule, Inc. at December 31, 2015 and 2014, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

February 29, 2016

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ARQULE, INC.
BALANCE SHEETS

	December 31,	
	2015	2014
	(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 13,983	$ 12,525
Marketable securities-short term	24,789	46,683
Prepaid expenses and other current assets	714	1,893
Total current assets	39,486	61,101
Marketable securities-long term	—	2,058
Property and equipment, net	266	133
Other assets	252	102
Total assets	$ 40,004	$ 63,394
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 6,234	$ 6,947
Current portion of deferred revenue	4,591	11,098
Current portion of deferred gain on sale leaseback	—	232
Total current liabilities	10,825	18,277
Deferred revenue, net of current portion	—	4,572
Total liabilities	10,825	22,849
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock, $0.01 par value; 1,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $0.01 par value; 100,000,000 shares authorized; 62,939,780 and 62,821,781 shares issued and outstanding at December 31, 2015 and 2014, respectively	629	628
Additional paid-in capital	510,664	508,270
Accumulated other comprehensive income (loss)	3	(10)
Accumulated deficit	(482,117)	(468,343)
Total stockholders' equity	29,179	40,545
Total liabilities and stockholders' equity	$ 40,004	$ 63,394

The accompanying notes are an integral part of these financial statements.
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ARQULE, INC.
STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

	YEAR ENDED DECEMBER 31,		
	2015	2014	2013
	(IN THOUSANDS, EXCEPT PER SHARE DATA)		
Revenue:			
Research and development revenue	$ 11,239	$ 11,254	$ 15,914
Costs and expenses:			
Research and development	15,561	22,271	27,555
General and administrative	9,830	12,154	12,836
Restructuring and other costs	—	1,099	650
	25,391	35,524	41,041
Loss from operations	(14,152)	(24,270)	(25,127)
Interest income	101	272	502
Interest expense	—	(35)	(32)
Other income	277	642	57
Loss before income taxes	(13,774)	(23,391)	(24,600)
Provision for income taxes	—	—	—
Net loss	(13,774)	(23,391)	(24,600)
Unrealized gain (loss) on marketable securities	13	(77)	(35)
Comprehensive loss	$ (13,761)	$ (23,468)	$ (24,635)
Basic and diluted net loss per share:			
Net loss per share	$ (0.22)	$ (0.37)	$ (0.39)
Weighted average basic and diluted common shares outstanding	62,808	62,627	62,480

The accompanying notes are an integral part of these financial statements.

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ARQULE, INC.
STATEMENTS OF STOCKHOLDERS' EQUITY
(IN THOUSANDS, EXCEPT SHARE DATA)

	COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	ACCUMULATED OTHER COMPREHENSIVE INCOME/(LOSS)	ACCUMULATED DEFICIT	STOCK-HOLDERS' EQUITY
	SHARES	PAR VALUE				
Balance at December 31, 2012	62,399,827	$ 624	$ 500,655	$ 102	$ (420,352)	$ 81,029
Stock option exercises and issuance of stock	200,395	2	72			74
Employee stock purchase plan	135,985	1	279			280
Stock based compensation expense			3,878			3,878
Change in unrealized gain (loss) on marketable securities				(35)		(35)
Net loss					(24,600)	(24,600)
Balance at December 31, 2013	62,736,207	627	504,884	67	(444,952)	60,626
Restricted shares issued net of forfeitures and shares redeemed for taxes	(5,257)	—				—
Employee stock purchase plan	90,831	1	104			105
Stock based compensation expense			3,282			3,282
Change in unrealized gain (loss) on marketable securities				(77)		(77)
Net loss					(23,391)	(23,391)
Balance at December 31, 2014	62,821,781	628	508,270	(10)	(468,343)	40,545

Restricted shares issued net of forfeitures and shares redeemed for taxes	13,242	—				—
Employee stock purchase plan	104,757	1	133			134
Stock based compensation expense			2,261			2,261
Change in unrealized gain (loss) on marketable securities				13		13
Net loss					(13,774)	(13,774)
Balance at December 31, 2015	62,939,780	$ 629	$ 510,664	$ 3	$ (482,117)	$ 29,179

The accompanying notes are an integral part of these financial statements.

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ARQULE, INC.
STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31,		
	2015	2014	2013
	(IN THOUSANDS)		
Cash flows from operating activities:			
Net loss	$ (13,774)	$ (23,391)	$ (24,600)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	161	603	864
Amortization of premium/discount on marketable securities	464	1,120	2,144
Amortization of deferred gain on sale leaseback	(232)	(552)	(552)
Non-cash stock compensation	2,261	3,282	3,943
Gain on auction rate securities	—	(254)	(57)
Gain on sale of property and equipment	(277)	(388)	—
Impairment of property and equipment	—	280	—
Changes in operating assets and liabilities:			
Prepaid expenses and other assets	1,029	(30)	(363)
Accounts payable and accrued expenses	(713)	(1,523)	(1,693)
Deferred revenue	(11,079)	(10,929)	(13,366)
Net cash used in operating activities	(22,160)	(31,782)	(33,680)
Cash flows from investing activities:			
Purchases of marketable securities	(36,978)	(33,366)	(40,581)
Proceeds from sale or maturity of marketable securities	60,479	63,189	75,224
Proceeds from sale of property and equipment	298	500	—
Purchases of property and equipment	(315)	—	—
Net cash provided by investing activities	23,484	30,323	34,643
Cash flows from financing activities:			
Payment of notes payable	—	(1,700)	—
Proceeds from stock option exercises and employee stock plan purchases	134	105	289
Net cash provided by (used in) financing activities	134	(1,595)	289
Net increase (decrease) in cash and cash equivalents	1,458	(3,054)	1,252
Cash and cash equivalents, beginning of period	12,525	15,579	14,327
Cash and cash equivalents, end of period	$ 13,983	$ 12,525	$ 15,579

SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION (IN THOUSANDS):
The Company paid interest on debt of $0, $35 and $32 in 2015, 2014 and 2013, respectively.
The Company paid no income taxes in 2015, 2014 or 2013.
The accompanying notes are an integral part of these financial statements.

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)
1. ORGANIZATION AND NATURE OF OPERATIONS
We are a biopharmaceutical company engaged in the research and development of innovative therapeutics to treat cancers and rare diseases. Our mission is to discover, develop and commercialize novel small molecule drugs in areas of high unmet need that will dramatically extend and improve the lives of our patients. These drugs target biological pathways implicated in a wide range of cancers and certain non-oncology indications. Our discovery and development efforts are guided, when possible, by an understanding of the role of biomarkers, which are indicators of a particular biological condition or process and may predict the clinical benefit of our compounds in defined patient populations. Our proprietary clinical-stage pipeline consists of four drug candidates, all of which are in targeted patient populations making ArQule a leader among companies our size in precision medicine.
Our lead product candidate is tivantinib (ARQ 197), an orally administered, small molecule inhibitor of the c-Met receptor tyrosine kinase ("MET") and its biological pathway. MET is a promising target for cancer therapy, based on its multiple roles in cancerous cell proliferation, tumor spread, new blood vessel formation and resistance to certain drug therapies. We and our partners, Daiichi Sankyo Co., Ltd. ("Daiichi Sankyo") and Kyowa Hakko Kirin Co., Ltd. ("Kyowa Hakko Kirin"), are implementing a worldwide clinical development program with tivantinib. Our strategy is to focus on the most promising indications within our clinical programs based upon continually generated and updated clinical and pre-clinical data. Our lead indication is liver cancer ("hepatocellular carcinoma" or "HCC"), and we are currently conducting two Phase 3 trials with our partners. We have also completed earlier-stage single agent and combination therapy trials and pre-clinical experiments with tivantinib and other anti-cancer agents that may provide data to support trials in additional indications.
We have licensed commercial rights to tivantinib for human cancer indications to Daiichi Sankyo in the U.S., Europe, South America and the rest of the world, excluding Japan and certain other Asian countries, where we have licensed commercial rights to Kyowa Hakko Kirin. Our agreements with these partners provide for possible future milestone payments, royalties on product sales, and development funding, in addition to significant payments that we have already received. To date we have received $100 million in upfront and milestone payments from Daiichi Sankyo, $15 million of which was related to the first patient enrolled in the METIV-HCC trial. That milestone was netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. To date, we have received $48 million in upfront and milestone payments from Kyowa Hakko Kirin.
Our proprietary pipeline of product candidates is directed toward molecular targets and biological processes with demonstrated roles in the development of both human cancers and rare, non-oncology diseases. These product candidates include: ARQ 092, designed to inhibit the AKT serine/threonine kinase; ARQ 087, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor ("FGFR") family; and ARQ 761, a Beta lapachone analog being evaluated in investigator-sponsored testing as a promoter of NQO1-mediated programmed cancer cell necrosis. We expect to add to our proprietary pipeline with the initiation of a Phase 1 clinical trial in oncology with our next generation AKT inhibitor, ARQ 751, in the first half of 2016. Specific tumor types and biomarkers have been identified to guide our clinical testing, based on analyses of Phase 1a anti-cancer activity in humans, preclinical findings and scientific literature.
Our uses of cash for operating activities have primarily consisted of salaries and wages for our employees, facility and facility-related costs for our offices and laboratories, fees paid in connection with preclinical and clinical studies, laboratory supplies and materials, and professional fees. The sources of our cash flow from operating activities have consisted primarily of payments received from our collaborators for services performed or upfront payments for future services. For each of the years ended December 31, 2015, 2014, and 2013 our net use of cash of $22.2 million, $31.8 million, and $33.7 million, respectively was primarily driven by the difference between payments for operating expenses and cash receipts from our collaborators.

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

1. ORGANIZATION AND NATURE OF OPERATIONS (Continued)

Our cash requirements may vary materially from those now planned depending upon the results of our drug discovery and development strategies, our ability to enter into additional corporate collaborations and the terms of such collaborations, results of research and development, unanticipated required capital expenditures, competitive and technological advances, acquisitions and other factors. We cannot guarantee that we will be able to develop any of our drug candidates into a commercial product. It is likely we will need to raise additional capital or incur indebtedness to continue to fund our operations in the future. Our ability to raise additional funds will depend on financial, economic and market conditions, and due to global capital and credit market conditions or for other reasons, we may be unable to raise capital when needed, or on terms favorable to us. If necessary funds are not available, we may have to delay, reduce the scope of, or eliminate some of our development programs, potentially delaying the time to market for any of our product candidates.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Significant accounting policies followed in the preparation of these financial statements are as follows:

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Cash Equivalents and Marketable Securities

We consider all highly liquid investments purchased within three months of original maturity date to be cash equivalents. We invest our available cash primarily in commercial paper, money market funds and U.S. Treasury bill funds. We generally classify our marketable securities as available-for-sale at the time of purchase and re-evaluate such designation as of each balance sheet date. The Company classifies its investments as either current or long-term based upon the investments' contractual maturities and the Company's ability and intent to convert such instruments to cash within one year. We report available-for-sale investments at fair value as of each balance sheet date and include any unrealized gains and, to the extent deemed temporary, unrealized losses in stockholders' equity. Realized gains and losses are determined using the specific identification method and are included in other income (expense) in the statement of operations and comprehensive loss. For any of our marketable securities classified as trading securities, changes in the fair value of those securities are recorded as other income (expense) in the statement of operations and comprehensive loss. At December 31, 2015 we had no trading securities.

We conduct quarterly reviews to determine the fair value of our investment portfolio and to identify and evaluate each investment that has an unrealized loss, in accordance with the meaning of other-than-temporary impairment and its application to certain investments. An unrealized loss exists when the current fair value of an individual security is less than its amortized cost basis. In the event that the cost basis of a security exceeds its fair value, we evaluate, among other factors, the duration of the period that, and extent to which, the fair value is less than cost basis, the financial health of and business outlook for the issuer, including industry and sector performance, and operational and financing cash flow factors, overall market conditions and trends, our intent to sell the investment and if it is more likely than not that we would be required to sell the investment before its anticipated recovery. Unrealized losses on available-for-sale securities that are determined to be temporary, and not related to credit loss, are recorded in accumulated other comprehensive income (loss).

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

For available-for-sale debt securities with unrealized losses, we perform an analysis to assess whether we intend to sell or whether we would more likely than not be required to sell the security before the expected recovery of the amortized cost basis. Where we intend to sell a security, or may be required to do so, the security's decline in fair value is deemed to be other-than-temporary and the full amount of the unrealized loss is reflected in the statement of operations and comprehensive loss as an impairment loss.

Regardless of our intent to sell a security, we perform additional analysis on all securities with unrealized losses to evaluate losses associated with the creditworthiness of the security. We did not recognize any other-than-temporary impairments during the years ended December 31, 2015, 2014 or 2013. Credit losses are identified where we do not expect to receive cash flows sufficient to recover the amortized cost basis of a security.

Fair Value of Financial Instruments

At December 31, 2015 and 2014 our financial instruments consist of cash, cash equivalents, investments in corporate debt securities, accounts payable, and accrued expenses. At December 31, 2015 and 2014 our financial instruments also included marketable securities which are reported at fair value.

Non-refundable Advance Payments for Research and Development

Non-refundable advance payments for goods or services that will be used or rendered for future research and development activities are initially deferred and capitalized. Related expenses (or contra-revenues) are then recognized as expense (or contra-revenue) as the goods are delivered and consumed or the related services are performed.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over their estimated useful lives. Assets under capital leases and leasehold improvements are amortized over the shorter of their estimated useful lives or the term of the respective leases by use of the straight-line method. Maintenance and repair costs are expensed as incurred. Depreciation and amortization expense for the years ended December 31, 2015, 2014 and 2013 was $161, $603, and $864, respectively.

Revenue Recognition—Research and Development Revenue

Research and development revenue is generated primarily through collaborative research and development agreements. The terms of the agreements may include nonrefundable upfront payments, funding for research and development, milestone payments and royalties on any product sales derived from collaborations.

The Company adopted the FASB issued ASU No. 2010-17, Revenue Recognition—Milestone Method on a prospective basis on January 1, 2011. The decision to use the milestone method of revenue recognition is a policy election. The milestone method may impact any new collaboration agreements or material modifications to existing agreements, in the event we elect the policy of utilizing the milestone method to recognize substantive milestones.

Research and development payments associated with our collaboration agreements in effect prior to January 1, 2011 are recognized as research and development revenue using the contingency adjusted performance model. Under this model, when payments are earned, revenue is immediately recognized on a pro-rata basis in the period we achieve the milestone based on the time elapsed from inception of the agreement to the time the milestone is earned over the estimated duration of the development period under

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

the agreement. Thereafter, the remaining portion of the milestone payment is recognized on a straight-line basis over the remaining estimated development period under the agreement. This estimated development period may ultimately be shorter or longer depending upon the outcome of the development work, resulting in accelerated or deferred recognition of the development revenue. Royalty payments will be recognized as revenue when earned. The costs associated with satisfying research and development contracts are included in research and development expense as incurred.

On November 10, 2011, we and Daiichi Sankyo announced the execution of a license agreement for the development of a new AKT inhibitor, ARQ 092. The license agreement provided exclusive rights to Daiichi Sankyo for the development, manufacturing and marketing of ARQ 092 on a worldwide basis. Following the termination of this agreement, ARQ 092 has become our proprietary asset, and Daiichi Sankyo has no further financial or other obligations or rights related to this program. Revenue for this agreement was recognized using Financial Accounting Standards Board Accounting Standards Update No. 2009-13, Multiple-Deliverable Revenue Arrangements (“ASU 2009-13”). Under ASU 2009-13 all undelivered items under an agreement are divided into separate units of accounting based on whether the deliverable provides stand-alone value to the licensee. The Company determined the best estimate selling price (BESP) for each unit of accounting based upon management’s judgment and including factors such as discounted cash flows, estimated direct expenses and other costs and probability of successful outcome of clinical trials.

Research and Development Costs

Costs of research and development, which are expensed as incurred, are comprised of the following types of costs incurred in performing research and development activities and those incurred in connection with research and development revenue: salaries and benefits, allocated overhead and occupancy costs, clinical trial and related clinical manufacturing costs, contract services, and other outside costs.

Impairment or Disposal of Long-Lived Assets

We assess our long-lived assets for impairment whenever events or changes in circumstances (a “triggering event”) indicate that the carrying value of a group of long-lived assets 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. As a result of our restructuring in 2014, we recognized an impairment charge related to our long-lived assets of $280. We did not recognize any impairment charges related to our long-lived assets during 2015 or 2013.

Segment Data

The chief operating decision maker uses aggregated- financial information in determining how to allocate resources and assess performance. For this reason, we have determined that we are principally engaged in one operating segment. See Note 13 with respect to significant customers. Substantially all of our revenue since inception has been generated in the U.S. and all of our long-lived assets are located in the U.S.

Other Income

Other income in 2015 includes a gain of $277 from the sale of property and equipment. Other income in 2014 includes a gain of $254 upon the redemption of $2,100 of our remaining auction rate securities at face value, and a gain of $388 from the sale of property and equipment. Other income in 2013 a gain from the increase in fair value of our auction rate securities of $57.

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 expected to apply 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, the Company recognizes the benefit of uncertain tax positions in the financial statements.

Earnings (Loss) Per Share

The computations of basic and diluted earnings (loss) per common share are based upon the weighted average number of common shares outstanding and potentially dilutive securities. Potentially dilutive securities include stock options. Options to purchase 8,305,950, 7,724,614 and 7,511,814 shares of common stock were not included in the 2015, 2014 and 2013 computations of diluted net loss per share, respectively, because inclusion of such shares would have an anti-dilutive effect.

Stock-Based Compensation

Our stock-based compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense over the employees’ requisite service period (generally the vesting period of the equity grant).

We estimate the fair value of stock options using the Black-Scholes valuation model. Key input assumptions used to estimate the fair value of stock options include the exercise price of the award, expected option term, expected volatility of our stock over the option’s expected term, risk-free interest rate over the option’s expected term, and the expected annual dividend yield. We believe that the valuation technique and approach utilized to develop the underlying assumptions are appropriate in calculating the fair values of our stock options granted.

The following table presents stock-based compensation expense for the years ended December 31, 2015, 2014 and 2013 included in our Statements of Operations and Comprehensive Loss:

	2015	2014	2013
Research and development	$ 682	$ 1,016	$ 1,315
General and administrative	1,579	2,183	2,489
Restructuring	—	83	139
Total stock-based compensation expense	$ 2,261	$ 3,282	$ 3,943

In the years ended December 31, 2015, 2014 and 2013, no stock-based compensation expense was capitalized and there were no recognized tax benefits associated with the stock-based compensation charges.

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

The fair value of stock options and employee stock purchase plan shares granted in the years ended December 31, 2015, 2014 and 2013 respectively were estimated on the grant date using the Black-Scholes option-pricing model with the following assumptions:

	2015	2014	2013
Dividend yield(1)	0.0%	0.0%	0.0%
Weighted average expected volatility factor(2)	66%	67%	73%
Risk free interest(3)	1.3–1.7%	1.5–1.8%	0.8–1.7%
Expected term, excluding options issued pursuant to the Employee Stock Purchase Plan(4)	5.6–6.8 years	5.8–6.9 years	5.9–7.1 years
Expected term—Employee Stock Purchase Plan(5)	6 months	6 months	6 months

(1)
We have historically not paid dividends on our common stock and we do not anticipate paying any dividends in the foreseeable future.

(2)
Measured using an average of historical daily price changes of our stock over a period equal to our expected term.

(3)
The risk-free interest rate for periods equal to the expected term of share option based on the U.S. Treasury yield in effect at the time of grant.

(4)
The expected term is the number of years that we estimate, based on historical experience, that options will be outstanding before exercise or cancellation. The range in expected term is the result of certain groups of employees exhibiting different exercising behavior.

(5)
The expected term of options issued in connection with our Employee Stock Purchase Plan is 6 months based on the terms of the plan.

Recent Accounting Pronouncements
From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (“FASB”) or other standard setting bodies that are adopted by the Company as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.
In August 2014, the FASB issued Accounting Standard Update (“ASU”) 2014-15, Presentation of Financial Statements—Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern. Under the new guidance, management will be required to assess an entity’s ability to continue as a going concern, and to provide related footnote disclosures in certain circumstances. The provisions of this ASU are

effective for annual periods beginning after December 15, 2016, and for annual and interim periods thereafter. We are currently evaluating the potential impact that this ASU may have on our disclosures.

In June 2014, the FASB issued ASU No. 2014-12, “Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period.” This ASU requires a reporting entity to treat a performance target that affects vesting and that

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

could be achieved after the requisite service period as a performance condition, and apply existing guidance under the Stock Compensation Topic of the ASC as it relates to awards with performance conditions that affect vesting to account for such awards. The provisions of this ASU are effective for interim and annual periods beginning after December 15, 2015. We are currently evaluating the potential impact that this ASU may have on our financial position and results of operations.

During the quarter ended June 30, 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers” (Topic 606), which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. We are currently evaluating the method of adoption and the potential impact that Topic 606 may have on our financial position and results of operations.

3. COLLABORATIONS AND ALLIANCES

Daiichi Sankyo Tivantinib Agreement

On December 18, 2008, we entered into a license, co-development and co-commercialization agreement with Daiichi Sankyo to conduct research, clinical trials and the commercialization of tivantinib in human cancer indications in the U.S., Europe, South America and the rest of the world, excluding Japan, China (including Hong Kong), South Korea and Taiwan, where Kyowa Hakko Kirin has exclusive rights for development and commercialization.

The agreement provides for a $60 million cash upfront licensing payment from Daiichi Sankyo to us, which we received in December 2008, and an additional $560 million in potential development and sales milestone payments offset by our share of Phase 3 costs. On November 3, 2015, the Company announced that it had exercised its option with Daiichi Sankyo to co-commercialize tivantinib in the United States (the “Co-Commercialization Option”), pursuant to the agreement. Subject to the receipt of regulatory approvals, the first commercial indication for tivantinib under the Co-Commercialization Option is anticipated to be second line HCC. The parties have a prescribed period to conclude a co-commercialization agreement in accordance with the terms of the agreement which is expected to occur in the late first quarter or early second quarter of 2016. If the METIV-HCC trial is successful, and tivantinib is approved in second line HCC, the agreement provides that the Company will receive a total of $55 million in milestone payments for the official acceptance of drug approval applications by FDA and the European Medicines Agency (“EMA”) in this first indication, plus an additional $100 million in combined milestones tied to receipt of commercialization regulatory approval by the FDA and the first commercial sale in the UK, Germany, France, Italy or Spain. These milestones, totaling $155 million, will be partially offset by Phase 3 costs owed to Daiichi Sankyo by the Company at the time of approval in the US or EU. At December 31, 2015, the Company’s share of these Phase 3 costs totaled $61.4 million. The agreement also provides that the Company will receive tiered double digit royalties on net sales of tivantinib throughout the territory. Given the anticipated commercial market for second line HCC, the Company expects to earn royalties on net sales for this indication at the baseline contractual rate of 20 percent.

We and Daiichi Sankyo will share equally the costs of Phase 2 and Phase 3 clinical studies, with our share of Phase 3 costs payable solely from milestone and royalty payments by Daiichi Sankyo.

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS (Continued)

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

3. COLLABORATIONS AND ALLIANCES (Continued)

Under the terms of our tivantinib collaboration agreement with Daiichi Sankyo we share development costs equally with our share of Phase 3 costs funded solely from milestones and royalties. In each quarter the tivantinib collaboration costs we incur are compared with those of Daiichi Sankyo. If our costs for the quarter exceed Daiichi Sankyo's, we recognize revenue on the amounts due to us under the contingency adjusted performance model. Revenue is calculated on a pro-rata basis using the time elapsed from inception of the agreement over the estimated duration of the development period under the agreement. If our costs for the quarter are less than those of Daiichi Sankyo's, we report the amount due to Daiichi Sankyo as contra-revenue in that quarter. To the extent that our share of Phase 3 collaboration costs exceeds the amount of milestones and royalties received, that excess is netted against future milestones and royalties if and when earned and is not reported as contra-revenue.

Our cumulative share of the Daiichi Sankyo Phase 3 costs through December 31, 2015 totaled $101.4 million. We received a milestone of $25 million in February 2011 upon enrolling the first patient in the MARQUEE trial, the cash proceeds of which were subsequently applied to our share of Phase 3 collaboration costs. On January 31, 2013, we announced that the first patient had been enrolled in the pivotal Phase 3 METIV trial of tivantinib, entitling us to a $15 million milestone. That $15 million milestone was also netted against our cumulative share of Phase 3 collaboration costs in 2013, and consequently we did not receive any cash proceeds from this milestone. Our cumulative share of Phase 3 collaboration costs has exceeded the amount of milestones received through December 31, 2015 by $61.4 million which will be netted against future milestones and royalties, if any, when earned and has not been reported as contra-revenue.

In 2015, we recognized net research and development revenue of $0.1 million related to our non-Phase 3 tivantinib collaboration costs which included $0.2 million of revenue and contra-revenue of $0.1 million. In 2014, we recognized net research and development revenue of $0.2 million related to our non-Phase 3 tivantinib collaboration costs which included $0.4 million of revenue and contra-revenue of $0.2 million. In 2013, we recognized net contra-revenue of $0.4 million related to our non-Phase 3 tivantinib collaboration costs which included contra-revenue of $0.7 million and $0.3 million of revenue.

The duration and termination of the agreement are tied to future events. Unless earlier terminated due to breach, insolvency or upon 90 days' notice if prior to Phase 3 clinical trials or 180 days' notice if on or after the beginning of Phase 3 clinical trials by Daiichi Sankyo, the agreement shall continue until the later of (i) such time as Daiichi Sankyo is no longer developing at least one licensed product or (ii) if Daiichi Sankyo has commercialized a licensed product or products, such time as all royalty terms for all licensed products have ended. The royalty term, on a country-by-country basis for a product, ends as of the later of (i) the expiration of the last valid claim under a patent covering the manufacture, use, or sale of a licensed product or (ii) a certain number of years from the date of the commercial sale of the licensed product in such country.

Revenue for this agreement is recognized using the contingency-adjusted performance model. Through September 30, 2012, revenue was recognized based upon an estimated development period through December 2013. As a result of the October 2012 decision to discontinue the MARQUEE trial, the development period as of October 1, 2012 was extended to June 2015. Commencing with the fourth quarter of 2012 and through the third quarter of 2013 revenue was recognized over that development period. In the fourth quarter of 2013, following a recommendation by the Data Monitoring Committee that the METIV-HCC trial continue with patients receiving a lower dose of tivantinib than the dose originally employed in the trial, we reviewed the estimated development period and extended it to June 2016.

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NOTES TO FINANCIAL STATEMENTS (Continued)

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3. COLLABORATIONS AND ALLIANCES (Continued)

For the years ended December 31, 2015, 2014 and 2013, $5.5 million, net of $0.1 million of contra-revenue, $5.6 million, net of $0.2 million of contra-revenue and $7.2 million, net of $0.7 million of contra-revenue respectively, were recognized as revenue. At December 31, 2015 and 2014, $2.7 million and $8.1 million respectively, remained in deferred revenue.

Kyowa Hakko Kirin Licensing Agreement

On April 27, 2007, we entered into an exclusive license agreement with Kyowa Hakko Kirin to develop and commercialize tivantinib in Japan and parts of Asia. A $3 million portion of an upfront licensing fee was received by the Company under this agreement in the first quarter of 2007, and an additional $27 million in upfront licensing fees was received on May 7, 2007. The agreement includes $123 million in upfront and potential development milestone payments from Kyowa Hakko Kirin to ArQule, including the $30 million cash upfront licensing payments. In February 2008, we received a $3 million milestone payment from Kyowa Hakko Kirin. Upon commercialization, ArQule will receive tiered royalties in the mid-teen to low-twenty percent range from Kyowa Hakko Kirin on net sales of tivantinib. Kyowa Hakko Kirin will be responsible for all clinical development costs and commercialization of the compound in certain Asian countries, consisting of Japan, China (including Hong Kong), South Korea and Taiwan. In July 2010, we announced the initiation of a Phase 2 trial with tivantinib by Kyowa Hakko Kirin in gastric cancer, for which we received a $5 million milestone payment in September 2010.

In August 2011, Kyowa Hakko Kirin announced the initiation of the Phase 3 ATTENTION trial. Dosing of the first patient in this trial triggered a $10 million milestone payment, which we received in August 2011. The milestone payment was recorded as deferred revenue and is being recognized as revenue using the contingency-adjusted performance model with an estimated development period through April 2016.

On February 4, 2014, Kyowa Hakko Kirin announced the initiation of the Phase 3 JET-HCC trial. There were no milestone payments associated with the initiation of this trial.

In addition to the upfront and possible regulatory milestone payments totaling $123 million, the Company will be eligible for future milestone payments based on the achievement of certain levels of net sales. The Company will recognize the payments, if any, as revenue in accordance with the contingency-adjusted performance model. As of December 31, 2015, the Company had not recognized any revenue from these sales milestone payments, and there can be no assurance that it will do so in the future.

The duration and termination of the agreement are tied to future events. Unless earlier terminated due to breach, insolvency or upon 90 days' notice by Kyowa Hakko Kirin, the agreement terminates on the date that the last royalty term expires in all countries in the territory. The royalty term ends as of the later of (i) the expiration of the last pending patent application or expiration of the patent in the country covering the manufacture, use, or sale of a licensed product or (ii) a certain number of years from the date of the commercial launch in such country of such license product.

Revenue for this agreement is recognized using the contingency-adjusted performance model with an estimated development period through April 2016. For each of the years ended December 31, 2015, 2014, and 2013, $5.7 million was recognized as revenue. At December 31, 2015 and 2014, $1.9 million and $7.6 million respectively, remained in deferred revenue.

Beryllium Discovery Corp. Agreement

In May 2015, we entered into a collaborative research and development agreement with Beryllium Discovery Corp. ("Beryllium"). Pursuant to the agreement, we will jointly focus on the identification and preclinical development of inhibitors of PD-1 and PDL-1. We and Beryllium will each be responsible for

our respective internal and outsourcing costs during pre-clinical development. Following lead optimization of any potential drug candidates, we and Beryllium will jointly decide whether to advance compounds into GLP/toxicology and clinical testing, initially on a shared cost basis, provided that we will have the right to advance compounds on our own should Beryllium vote against such advancement. The agreement also provides that we will be responsible for clinical development and commercialization of product candidates that are not out-licensed. Beryllium will have the right to participate financially throughout the program but will also have the option to opt out at certain times and receive a royalty. The agreement will terminate after the last payment obligation is satisfied, or prior to that upon 60-days' notice by either party.

4. MARKETABLE SECURITIES AND FAIR VALUE MEASUREMENTS

We generally classify our marketable securities as available-for-sale at the time of purchase and re-evaluate such designation as of each balance sheet date. Since we generally intend to convert them into cash as necessary to meet our liquidity requirements our marketable securities are classified as cash equivalents if the original maturity, from the date of purchase, is ninety days or less and as short-term investments if the original maturity, from the date of purchase, is in excess of ninety days but less than one year. Our marketable securities are classified as long-term investments if the maturity date is in excess of one year of the balance sheet date.

We report available-for-sale investments at fair value as of each balance sheet date and include any unrealized gains and, to the extent deemed temporary, unrealized losses in stockholders' equity. Realized gains and losses are determined using the specific identification method and are included in other income (expense) in the statement of operations and comprehensive loss. Our auction rate securities are classified as trading securities and any changes in the fair value of those securities are recorded as other income (expense) in the statement of operations and comprehensive loss.

We conduct quarterly reviews to determine the fair value of our investment portfolio and to identify and evaluate each investment that has an unrealized loss, in accordance with the meaning of other-than-temporary impairment and its application to certain investments. An unrealized loss exists when the current fair value of an individual security is less than its amortized cost basis. In the event that the cost basis of a security exceeds its fair value, we evaluate, among other factors, the duration of the period that, and extent to which, the fair value is less than cost basis, the financial health of and business outlook for the issuer, including industry and sector performance, and operational and financing cash flow factors, overall market conditions and trends, our intent to sell the investment and if it is more likely than not that we would be required to sell the investment before its anticipated recovery. Unrealized losses on available-for-sale securities that are determined to be temporary, and not related to credit loss, are recorded in accumulated other comprehensive income (loss).

For available-for-sale debt securities with unrealized losses, we perform an analysis to assess whether we intend to sell or whether we would more likely than not be required to sell the security before the expected recovery of the amortized cost basis. Where we intend to sell a security, or may be required to do so, the security's decline in fair value is deemed to be other-than-temporary and the full amount of the unrealized loss is reflected in the statement of operations and comprehensive loss as an impairment loss.

Regardless of our intent to sell a security, we perform additional analysis on all securities with unrealized losses to evaluate losses associated with the creditworthiness of the security. Credit losses are identified where we do not expect to receive cash flows sufficient to recover the amortized cost basis of a security.

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4. MARKETABLE SECURITIES AND FAIR VALUE MEASUREMENTS (Continued)

We invest our available cash primarily in commercial paper, money market funds, and U.S. Treasury bill funds and U.S. federal and state agency backed certificates that have investment grade ratings. During 2014 all $2.1 million of our auction rate securities were redeemed at full face value. ArQule's marketable securities portfolio included $2.1 million (at cost) at December 31, 2013 invested in auction rate securities.

The following is a summary of the fair value of available-for-sale marketable securities we held at December 31, 2015 and December 31, 2014:

December 31, 2015	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Security type				
Corporate debt securities-short term	$ 24,786	$ 13	$ (10)	$ 24,789
Corporate debt securities-long term	—	—	—	—
Total available-for-sale marketable securities	$ 24,786	$ 13	$ (10)	$ 24,789

December 31, 2014	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Security type				
Corporate debt securities-short term	$ 46,690	$ 16	$ (23)	$ 46,683
Corporate debt securities-long term	2,061	—	(3)	2,058
Total available-for-sale marketable securities	$ 48,751	$ 16	$ (26)	$ 48,741

None of our available-for-sale marketable securities were in a continuous unrealized loss position for more than 12 months at December 31, 2015 or 2014.

The following tables present information about our assets that are measured at fair value on a recurring basis for the periods presented and indicates the fair value hierarchy of the valuation techniques we utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are observable such as quoted prices, interest rates and yield curves. We value our level 2 investments using quoted prices for identical assets in the markets where they are traded, although such trades may not occur daily. These quoted prices are based on observable inputs, primarily interest rates. Fair values determined by Level 3 inputs are unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability.

There were no transfers in or out of Level 1 or Level 2 measurements for the periods presented:

December 31, 2015	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)

Cash equivalents	$ 11,800	$ 11,800	$ —	$ —
Corporate debt securities-short term	24,789	—	24,789	—
Corporate debt securities-long term	—	—	—	—
Total	$ 36,589	$ 11,800	$ 24,789	$ —

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4. MARKETABLE SECURITIES AND FAIR VALUE MEASUREMENTS (Continued)

	December 31, 2014	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents	$ 10,740	$ 10,740	$ —	$ —
Corporate debt securities-short term	46,683	—	46,683	—
Corporate debt securities-long term	2,058	—	2,058	—
Total	$ 59,481	$ 10,740	$ 48,741	$ —

5. PROPERTY AND EQUIPMENT

Property and equipment consist of the following at December 31, 2015 and 2014:

	USEFUL LIFE ESTIMATED (YEARS)	2015	2014
Machinery and equipment	5	$ 1,939	$ 2,562
Leasehold improvements	3–10	232	1,005
Furniture and fixtures	7	40	1,175
Computer equipment	3	2,482	3,604
		4,693	8,346
Less: Accumulated depreciation and amortization		4,427	8,213
Net property and equipment		$ 266	$ 133

In January 2015, we entered into a lease agreement for a new headquarters facility in Burlington, MA of approximately 15,000 square feet. The lease commenced on May 1, 2015 for a term of five years and three months with an average annual rental rate of $455.

In conjunction with the move to our new facility in 2015, we recognized a gain of $277 from the sale of property and equipment. In 2015, we wrote off property and equipment with an original cost and accumulated depreciation of $4.0 million.

As a result of our restructuring in 2014, we recognized an impairment charge related to our property and equipment of $280. In 2014, we also recognized a gain of $388 from the sale of property and equipment. In anticipation of our move to our new leased facility, property and equipment with an original cost of $10.4 million and accumulated depreciation of $10.3 million were written off in 2014.

6. OTHER ASSETS

Other assets include the following at December 31, 2015 and 2014:

	2015	2014
Security deposits	$ 252	$ 102

Total other assets	$ 252	$ 102

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7. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses include the following at December 31, 2015 and 2014:

	2015	2014
Accounts payable	$ 186	$ 259
Accrued payroll	1,956	2,130
Accrued outsourced pre-clinical and clinical fees	3,273	3,753
Accrued professional fees	516	157
Other accrued expenses	303	648
	$ 6,234	$ 6,947

8. STOCKHOLDERS' EQUITY

Preferred Stock

We are authorized to issue up to one million shares of preferred stock. As of December 31, 2015 and 2014, there were no outstanding shares of preferred stock. Our Board of Directors will determine the terms of the preferred stock if and when the shares are issued.

Common Stock

Our amended Certificate of Incorporation authorizes the issuance of up to 100 million shares of $0.01 par value common stock.

At December 31, 2015, we have 253,460 common shares reserved for future issuance under the Employee Stock Purchase Plan ("Purchase Plan") and 4,311,474 for the exercise of common stock options pursuant to the 2014 Equity Incentives Plan ("Equity Incentives Plan") , the Amended and Restated 1994 Equity Incentive Plan and the Amended and Restated 1996 Director Stock Option Plan ("Director Plan").

9. EQUITY INCENTIVE PLANS

In 2014, our stockholders approved our Equity Incentives Plan and authorized 3,750,000 shares of common stock for issuance pursuant to future awards under the Equity Plan. In addition, any shares from our Amended and Restated 1994 Equity Incentive Plan that expire, are cancelled or forfeited after the effective date of the Equity Incentives Plan may also be issued for future awards under the Equity Incentives Plan. All shares are awarded at the discretion of our Board of Directors in a variety of stock based forms including stock options, restricted stock and performance based stock units, and stock appreciation rights. Pursuant to the Equity Incentives Plan, incentive stock options may not be granted at less than the fair market value of our common stock at the date of the grant, and the option term may not exceed ten years. Stock options issued pursuant to the Equity Incentives Plan generally vest over four years. For holders of 10% or more of our voting stock, options may not be granted at less than 110% of the fair market value of the common stock at the date of the grant, and the option term may not exceed five years. Stock appreciation rights granted in tandem with an option shall have an exercise price not less than the exercise price of the related option. As of December 31, 2015, no stock appreciation rights have been issued. At December 31, 2015, there were 2,433,650 shares available for future grants under the Equity Incentives Plan and 1,611,324 shares available under our Amended and Restated 1994 Equity Incentive Plan.

During 2014, our stockholders approved an amendment to the Director Plan to increase the number of shares available to 1,200,000. Under the terms of the Director Plan, options to purchase shares of common stock are automatically granted (A) to the Chairman of the Board of Directors (1) upon his or her initial election or appointment in the amount of 25,000 and vesting over three years and (2) upon his or her

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9. EQUITY INCENTIVE PLANS (Continued)

re-election or continuation on our board immediately after each annual meeting of stockholders in the amount of 25,000 and vesting one year from the date of grant, and (B) to each other Director (1) upon his or her initial election to our board in the amount of 30,000 and vesting over three years and (2) upon his or her re-election or continuation on our board in the amount of 15,000 and vesting one year from the date of grant. All options granted pursuant to the Director Plan have a term of ten years with exercise prices equal to fair market value on the date of grant. Through December 31, 2015, options to purchase 1,247,500 shares of common stock have been granted under this plan of which 820,000 shares are currently exercisable. As of December 31, 2015, 266,500 shares are available for future grant.

Option activity under the Plans for the years ended December 31, 2013, 2014 and 2015 was as follows:

Stock Options	Number of Shares	Weighted Average Exercise Price
Outstanding as of December 31, 2012	7,157,458	$ 5.70
Granted	1,220,910	2.53
Exercised	(3,000)	2.35
Cancelled	(863,554)	4.82
Outstanding as of December 31, 2013	7,511,814	$ 5.28
Granted	1,150,119	2.47
Exercised	—	—
Cancelled	(937,319)	5.06
Outstanding as of December 31, 2014	7,724,614	$ 4.89
Granted	1,513,850	1.25
Exercised	—	—
Cancelled	(932,514)	4.82
Outstanding as of December 31, 2015	8,305,950	$ 4.24
Exercisable as of December 31, 2015	5,756,625	$ 5.12

The following table summarizes information about options outstanding at December 31, 2015:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding at December 31, 2015	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Exercisable as of December 31, 2015	Weighted Average Exercise Price
$1.16–1.42	1,206,350	9.01	$ 1.17	7,800	$ 1.16
1.43–2.35	318,750	8.98	1.70	105,000	1.46

2.36–2.80	1,756,703	6.94	2.55	815,072	2.56
2.81–5.60	2,053,809	2.87	3.89	2,053,809	3.89
5.61–8.40	2,893,338	3.92	6.93	2,697,944	6.86
8.41–9.45	77,000	1.37	9.09	77,000	9.09
	8,305,950	5.21	$ 4.24	5,756,625	$ 5.12

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9. EQUITY INCENTIVE PLANS (Continued)

The aggregate intrinsic value of options outstanding at December 31, 2015 was $1,363. The weighted average grant date fair value of options granted in year ended December 31, 2015, 2014 and 2013 was $0.77, $1.65, and $1.69, per share, respectively. No options were exercised in the years ended December 31, 2015 and 2014. The intrinsic value of options exercised in the year ended December 31, 2013, was $1.

Options vested, expected to vest and exercisable at December 31, 2015 are as follows:

	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Vested and unvested expected to vest at December 31, 2015	8,119,246	$ 4.24	5.21	$ 1,265
Exercisable at December 31, 2015	5,756,625	$ 5.12	3.82	$ 83

The total compensation cost not yet recognized as of December 31, 2015 related to non-vested option awards was $2,545 which will be recognized over a weighted-average period of 2.3 years. During the year ended December 31, 2015, 205,980 shares were forfeited with a weighted average grant date fair value of $1.48 per share and a weighted average exercise price of $2.35 per share. During the year ended December 31, 2015, 726,534 shares expired with a weighted average grant date fair value of $3.30 per share and a weighted average exercise price of $5.52 per share. The weighted average remaining contractual life for options exercisable at December 31, 2015 was 3.8 years.

In 2013, we granted 242,697 shares of restricted stock to employees, vesting annually over a four year period. No restricted stock was granted in 2015 or 2014. The weighted average fair value of the restricted stock at the time of grant in 2013 was $2.51 per share, and is being expensed ratably over the vesting period. We recognized share-based compensation expense related to restricted stock of $76, $88 and $187 for the year ended December 31, 2015, 2014 and 2013, respectively.

Restricted stock activity under the equity incentives plan for the year ended December 31, 2015 was as follows:

Restricted Stock	Number of Shares	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2014	105,665	$ 2.51
Granted	—	—
Vested	(36,101)	2.51
Cancelled	(10,929)	2.51
Unvested as of December 31, 2015	58,635	$ 2.51

The fair value of restricted stock vested in 2015, 2014 and 2013 was $78, $78 and $206, respectively.

In July 2010, the Company amended its chief executive officer's (the "CEO's") employment agreement to grant the CEO 100,000 stock options, of which 25% vested upon grant and 25% vest annually over the next three years, and a maximum of 390,000 performance-based stock units that vest upon the achievement of certain performance and market based targets. In March 2013, the Company amended its CEO's employment agreement to modify the

performance and market based targets. In February 2012, the Company amended its chief medical officer's (the "CMO's") employment agreement to grant the CMO 50,000 performance-based stock units that vest upon the achievement of certain performance based targets. In March 2013, the Company amended its chief operating officer's (the "COO's") employment agreement

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9. EQUITY INCENTIVE PLANS (Continued)

to grant the COO 125,000 performance-based stock units that vest upon the achievement of certain performance based targets. In March 2013, the Company amended its CMO's employment agreement to grant the CMO 120,000 performance-based stock units that vest upon the achievement of certain performance based targets. Through December 31, 2015 no expense has been recorded for any performance-based stock units granted to the CEO, COO, or CMO.

In 1996, the stockholders adopted the Purchase Plan. This plan enables eligible employees to exercise rights to purchase our common stock at 85% of the fair market value of the stock on the date the right was granted or the date the right is exercised, whichever is lower. Rights to purchase shares under the Purchase Plan are granted by the Board of Directors. The rights are exercisable during a period determined by the Board of Directors; however, in no event will the period be longer than twenty-seven months. The Purchase Plan is available to substantially all employees, subject to certain limitations. In 2011, our stockholders approved an amendment to the Purchase Plan to increase the aggregate number of shares of the Company's common stock that may be issued to 2,400,000. As of December 31, 2015, 2,146,540 shares have been purchased and 253,460 shares are available for future sale under the Purchase Plan. We recognized share-based compensation expense related to the Purchase Plan of $60, $58 and $124 for the year ended December 31, 2015, 2014 and 2013, respectively.

10. INCOME TAXES

There was no current or deferred tax expense for the years ended December 31, 2015, 2014 or 2013 due to our loss before income taxes and our valuation allowance. We have recorded a full valuation allowance against our deferred tax assets based upon the weight of available evidence, as it is more likely than not that the deferred tax assets will not be realized.

The following is a reconciliation between the U.S. federal statutory rate and the effective tax rate for the years ended December 31, 2015, 2014 and 2013:

	2015	2014	2013
Income tax (benefit) expense at statutory rate	$ (4,683)	$ (7,953)	$ (8,364)
State tax (benefit) expense, net of Federal tax (benefit) expense	(677)	(1,154)	(901)
Permanent items	239	383	516
Effect of change in valuation allowance and State NOL expiration	4,945	9,402	10,862
Tax credits	(74)	(678)	(2,113)
Other	250	—	—
Tax expense (benefit)	$ —	$ —	$ —

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10. INCOME TAXES (Continued)

The income tax effect of temporary differences comprising the deferred tax assets and deferred tax liabilities on the accompanying balance sheets is a result of the following at December 31, 2015 and 2014:

	2015	2014
Deferred tax assets:		
Net operating loss carryforwards	$ 125,599	$ 115,747
Tax credit carryforwards	25,036	24,962
Equity based compensation	9,176	8,558
Book depreciation in excess of tax	35	1,352
Reserves and accruals	276	52
Deferred revenue	1,796	6,115
Loss on investment	—	194
Other	26	19
	161,944	156,999
Valuation allowance	(161,944)	(156,999)
Deferred tax liabilities	—	—
Net deferred tax assets	$ —	$ —

Total valuation allowance increased by $4,945 for the year ended December 31, 2015. We have evaluated positive and negative evidence bearing upon the realizability of our deferred tax assets, which are comprised principally of federal and state net operating loss (“NOL”), net capital loss, and research and development credit carryforwards. We have determined that it is more likely than not that we will not recognize the benefits of our federal and state deferred tax assets and, as a result, we have established a full valuation allowance against our net deferred tax assets as of December 31, 2015.

As of December 31, 2015, we had federal NOL, state NOL, and research and development credit carryforwards of approximately $357,122, $176,712 and $27,750 respectively, which expire at various dates through 2035. Approximately $15,020 of our federal NOL and $868 of our state NOL were generated from excess tax deductions from share-based awards, the tax benefit of which will be credited to additional paid-in-capital when the deductions reduce current taxes payable.

As of December 31, 2015, and 2014 we had no unrecognized tax benefits. We do not expect that the total amount of unrecognized tax benefits will significantly increase in the next twelve months. Our policy is to recognize interest and penalties related to uncertain tax positions in income tax expense. As of December 31, 2015 and 2014, we had no accrued interest or penalties related to uncertain tax positions. Our U.S. federal tax returns for the tax years 2012 through 2015 and our state tax returns for the tax years 2012 through 2015 remain open to examination. Prior tax years remain open to the extent of net operating loss and tax credit carryforwards.

Utilization of NOL and research and development credit carryforwards may be subject to a substantial annual limitation in the event of an ownership change that has occurred previously or could occur in the future pursuant to Section 382 and 383 of the Internal Revenue Code of 1986, as amended, as well as similar state provisions. An ownership change may limit the amount of NOL and research and development credit carryforwards that can be

utilized annually to offset future taxable income, and may, in turn, result in the expiration of a portion of those carryforwards before utilization. In general, an ownership change, as defined by Section 382, results from transactions that increase the ownership of certain stockholders or

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10. INCOME TAXES (Continued)

public groups in the stock of a corporation by more than 50 percentage points over a three year period. We undertook a detailed study of our NOL and research and development credit carryforwards through January 31, 2016, to determine whether such amounts are likely to be limited by Sections 382 or 383. As a result of this analysis, we currently do not believe any Sections 382 or 383 limitations will significantly impact our ability to offset income with available NOL and research and development credit carryforwards. However, future ownership changes under Section 382 may limit our ability to fully utilize these tax benefits.

11. RESTRUCTURING AND OTHER COSTS

In July 2013, we implemented a focused reduction in our workforce of 26 positions, resulting in a remaining workforce of approximately 68 employees. This action was intended to align human and financial resources with our primary focus on clinical-stage development, while retaining our core discovery capabilities. The costs associated with this action were comprised of severance payments of $422 and benefits continuation costs of $89 all of which were paid by December 31, 2013. We also incurred non-cash charges of $139 related to the modification of employee stock options.

On July 30, 2014, we approved plans to restructure our operations to better align our human and financial resources with our primary focus on clinical stage development programs and to extend our cash runway. Commencing on August 4, 2014, we began to reduce our workforce from 62 to approximately 40 employees by the end of the year. Most of this reduction came from our Discovery Group, which has been engaged primarily in early-stage, pre-clinical research. The costs associated with this action were comprised of severance payments of $662 and benefits continuation costs of $74. In the year ended December 31, 2014, $319 of these costs was paid and the remaining amount of $417 was paid by March 31, 2015. In addition, in the year ended December 31, 2014, we incurred non-cash charges of $83 related to the modification of employee stock options, and $280 for impairment of property and equipment impacted by the restructuring.

12. COMMITMENTS AND CONTINGENCIES

Leases

We lease a facility under a non-cancelable operating lease that terminates on July 31, 2020 and the minimum lease commitment for our leased facility is as follows:

YEAR ENDING DECEMBER 31,	OPERATING LEASES
2016	$ 529
2017	488
2018	484
2019	499
Thereafter	296
Total minimum lease payments	$ 2,296

Rent expense under our non-cancelable operating lease was approximately $1,569 for the year ended December 31, 2015, and $2,866 for the years ended December 31, 2014 and 2013.

In January 2015, we entered into a lease agreement for a new headquarters facility. The lease commenced on May 1, 2015 for a term of five years and three months with an average annual rental rate of $455. The lease obligation for the new facility is included in the table above.

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13. CONCENTRATION OF CREDIT RISK

Revenue from one customer represented approximately 49% of total revenue during 2015, 49% in 2014 and 53% in 2013. Revenue from another customer represented approximately 51% of total revenue during 2015, 51% in 2014, and 36% in 2013. Revenue from an additional customer for whom we completed a one-time research project represented approximately 11% of total revenue during 2013.

14. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
2015				
Net revenues	$ 2,785	$ 3,004	$ 2,653	$ 2,797
Net loss	(4,551)	(4,017)	(2,354)	(2,852)
Basic and diluted net loss per share:				
Net loss per share	$ (0.07)	$ (0.06)	$ (0.04)	$ (0.05)

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
2014				
Net revenues	$ 2,676	$ 2,901	$ 2,662	$ 3,015
Net loss	(7,141)	(6,339)	(6,399)	(3,512)
Basic and diluted earnings (loss) per share:				
Net loss per share	$ (0.11)	$ (0.10)	$ (0.10)	$ (0.06)

15. SUBSEQUENT EVENT

On February 26, 2016 the Company entered into definitive stock purchase agreements with certain institutional and accredited investors for the sale of approximately 8,030,000 shares of our common stock and non-transferable options to purchase up to approximately 3,570,000 shares of our common stock for aggregate proceeds of approximately $15.3 million. Each option is exercisable for $2.50 per share, and if all options were to be exercised it would result in additional proceeds of approximately $8.9 million. All options will expire on the first anniversary of a “Regulatory Event,” which we define as the public announcement by us of the outcome of the pre-planned interim assessment to be conducted by the data monitoring committee of the METIV-HCC trial as set forth in the Special Protocol Assessment with the United States Food and Drug Administration.

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

None.

ITEM 9A.
CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and President and Chief Operating Officer (Principal Financial Officer), evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2015. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended ("Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to provide reasonable assurance that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2015, our Chief Executive Officer and President and Chief Operating Officer (Principal Financial Officer) concluded that, as of such date, 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 such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in Internal Control—Integrated Framework (2013), our management concluded that our internal control over financial reporting was effective as of December 31, 2015.

The effectiveness of our internal control over financial reporting as of December 31, 2015 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended December 31, 2015 that has materially affected or is reasonably likely to materially affect our internal control over financial reporting.

ITEM 9B.
OTHER INFORMATION

None.

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PART III

Except as otherwise indicated, the following information required by the Instructions to Form 10-K is incorporated herein by reference from various sections of the ArQule, Inc. Proxy Statement for the annual meeting of stockholders to be held on May 24, 2016, as summarized below:

ITEM 10.

DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

"Election of Directors;" "Section 16(a) Beneficial Ownership Reporting Compliance;" "Corporate Governance;" and "Board Committees and Meetings."

Information regarding the executive officers of the Company is incorporated by reference from "Executive Officers" at the end of Item 1 of this report.

ITEM 11.

EXECUTIVE COMPENSATION

"Compensation Discussion and Analysis;" "Executive Compensation;" "Director Compensation;" "Compensation Committee Interlocks and Insider Participation;" and "Compensation Committee Report."

ITEM 12.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

"Share Ownership of Certain Beneficial Owners" and "Securities Authorized for Issuance Under Equity Compensation Plans."

ITEM 13.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

"Certain Relationships and Related Transactions" and "Director Independence."

ITEM 14.

PRINCIPAL ACCOUNTING FEES AND SERVICES

Fees paid to the Company's independent registered public accounting firm are disclosed under the caption "Ratification of the Selection of an Independent Registered Public Accountants."

PART IV

ITEM 15.

EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1. FINANCIAL STATEMENTS

The financial statements are listed under Item 8 of this report.

2. FINANCIAL STATEMENT SCHEDULES

The financial statement schedules are omitted from this report because they are not applicable or required information are shown in the financial statements of the footnotes thereto.

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3. EXHIBITS

EXHIBIT NO.	DESCRIPTION
3.1	Restated Certificate of Incorporation of the Company. Filed as Exhibit 3.1 to the Company's Annual Report on Form 10-K filed on March 2, 2011 (File No. 000-21429) and incorporated herein by reference.
3.3	Amended and Restated By-laws of the Company. Filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on January 27, 2014 (File No. 000-21429) and incorporated herein by reference.
4.1	Specimen Common Stock Certificate. Filed as Exhibit 4.2 to the Company's Registration Statement on Form S-1 filed on August 19, 1996 (File No. 333-11105) and incorporated herein by reference.
10.1*	Amended and Restated 1994 Equity Incentive Plan. Filed as Appendix A to the Company's Definitive Proxy Statement filed on April 29, 2011 (File No. 000-21429) and incorporated herein by reference.
10.2*	Amended and Restated 1996 Employee Stock Purchase Plan. Filed as Appendix B to the Company's Definitive Proxy Statement filed on April 29, 2011 (File No. 000-21429) and incorporated herein by reference.
10.3*	Amended and Restated 1996 Director Stock Option Plan. Filed as Appendix C to the Company's Definitive Proxy Statement filed on April 29, 2011 (File No. 000-21429) and incorporated herein by reference.
10.4*	2005 Director Stock Compensation Plan. Filed as Exhibit 4 to the Company's Registration Statement on Form S-8 filed on December 6, 2005 (File No. 333-130159) and incorporated herein by reference.
10.5*	Employment Agreement between the Company and Peter S. Lawrence dated April 13, 2006. Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 18, 2006 (File No. 000-21429) and incorporated herein by reference.
10.6+	Exclusive License Agreement by and between the Company and Kyowa Hakko Kogyo Co., Ltd. Filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2007 filed on August 7, 2007 (File No. 000-21429) and incorporated herein by reference.
10.7*	Amendment to Employment Agreement, dated as of October 4, 2007, by and between the Company and Peter S. Lawrence. Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 10, 2007 (File No. 000-21429) and incorporated herein by reference.
10.8*	Form of Incentive Stock Option Agreement. Filed as Exhibit 10.16 to the Company's Annual Report on Form 10-K filed on March 17, 2008 (File No. 000-21429) and incorporated herein by reference.
10.9*	Form of Non-Statutory Stock Option Agreement. Filed as Exhibit 10.17 to the Company's Annual Report on Form 10-K filed on March 17, 2008 (File No. 000-21429) and incorporated herein by reference.
10.10*	Second Amendment to Employment Agreement, dated April 14, 2008, by and between ArQule, Inc. and Peter S. Lawrence. Filed as Exhibit 10.4 to the Company's Current Report on Form 8-K, filed on April 18, 2008 (File No. 000-21429) and incorporated herein by reference.
10.11*	Employment Agreement, dated as of April 15, 2008, by and between ArQule, Inc. and Paolo Pucci. Filed as Exhibit 10.4 to the Company's Current Report on Form 8-K, filed on April 18, 2008 (File No. 000-21429) and incorporated herein by reference.

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EXHIBIT NO.	DESCRIPTION
10.12+	Collaborative Research, Development and License Agreement, dated November 7, 2008, by and between ArQule, Inc. and Daiichi Sankyo Co., Ltd. Filed as Exhibit 10.22 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 filed on March 6, 2009 (File No. 000-21429) and incorporated herein by reference.
10.13+	License, Co-Development and Co-Commercialization Agreement, dated December 18, 2008, by and between ArQule, Inc. and Daiichi Sankyo Co., Ltd. Filed as Exhibit 10.23 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 filed on March 6, 2009 (File No. 000-21429) and incorporated herein by reference.
10.14+	Agreement on Milestone Payments and Royalties, effective as of May 25, 2009 by and between ArQule, Inc. and Daiichi Sankyo Co., Ltd. Filed as Exhibit 10.1 to the Company's Current Report on Form 10-Q for the quarter ended June 30, 2009, filed on August 7, 2009 (File No. 000-21429) and incorporated herein by reference.
10.15*	Amendment to Employment Agreement, dated as of July 15, 2010, by and between the Company and Paolo Pucci. Filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 filed on August 4, 2010 (File No. 000-21429) and incorporated herein by reference.
10.16*	Form of Stock Unit Agreement. Filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010, filed on August 4, 2010 (File No. 000-21429) and incorporated herein by reference.
10.17*	Form of Restricted Stock Agreement. Filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010, filed on August 4, 2010 (File No. 000-21429) and incorporated herein by reference.
10.18+	Amendment No. 1 to Collaborative Research, Development and License Agreement, dated October 8, 2010, by and between ArQule, Inc. and Daiichi Sankyo Co., Ltd. Filed as Exhibit 10.1 to the Company's Amendment No. 1 to Quarterly Report on Form 10-Q for the quarter ended September 30, 2010 filed on January 14, 2011 (File No. 000-21429) and incorporated herein by reference.
10.19*	Employment Agreement, dated as of June 17, 2008, by and between ArQule, Inc. and Brian Schwartz, Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 24, 2012 (File No. 000-21429) and incorporated herein by reference.
10.20*	Amendment to Employment Agreement dated as of February 23, 2012 by and between ArQule, Inc. and Brian Schwartz. Filed as Exhibit 10.2 to Amendment No. 1 to the Company's Current Report on Form 8-K filed on February 27, 2012 (File No. 000-21429) and incorporated herein by reference.
10.21+	License and Co-Commercialization Agreement, dated November 8, 2011, by and between ArQule, Inc. and Daiichi Sankyo Co., Ltd. Filed as Exhibit 10.24 to the Company's Annual Report on Form 10-K for the year ended December 31, 2011 filed on March 1, 2012 (File No. 000-21429) and incorporated herein by reference.
10.22*	Second Amendment to Employment Agreement, dated as of March 8, 2013, by and between ArQule, Inc. and Paolo Pucci. Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 11, 2013 (File No. 000-21429) and incorporated herein by reference.
10.23*	Third Amendment to Employment Agreement, dated as of March 8, 2013, by and between ArQule, Inc. and Peter S. Lawrence. Filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on March 11, 2013 (File No. 000-21429) and incorporated herein by reference.
10.24*	Second Amendment to Employment Agreement, dated March 8, 2013, by and between

ArQule, Inc. and Brian Schwartz. Filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on March 11, 2013 (File No. 000-21429) and incorporated herein by reference.

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EXHIBIT NO.	DESCRIPTION
10.25	2014 Equity Incentives Plan. Filed as Appendix B to the Company's Definitive Proxy Statement filed on April 11, 2014 (File No. 000-21429) and incorporated herein by reference.
10.26+	Collaborative Research, Development and License Agreement, dated May 4, 2015, by and between ArQule, Inc. and Beryllium. Discovery Corp. Filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed on August 5, 2015 (File No. 000-21429) and incorporated herein by reference.
23.1	Consent of PricewaterhouseCoopers LLP, an Independent Registered Public Accounting Firm, filed herewith.
31.1	Rule 13a-14(a) Certificate of Chief Executive Officer, filed herewith.
31.2	Rule 13a-14(a) Certificate of Principal Financial Officer, filed herewith.
32	Rule 13a-14(b) Certificate of Chief Executive Officer and Principal Financial Officer, filed herewith.
101	The following materials from ArQule, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015, formatted in XBRL (Extensible Business Reporting Language): (i) Balance Sheets, (ii) Statements of Operations and Comprehensive Loss, (iii) Statements of Stockholders' Equity (Deficit) and Comprehensive Loss, (iv) Statements of Cash Flows, and (v) Notes to Financial Statements.

*
Indicates a management contract or compensatory plan.

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Certain confidential material contained in the document has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended or Rule 24b-2 of the Securities and Exchange Act of 1934, as amended.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ArQule, Inc.

By: /s/ Paolo Pucci

Paolo Pucci

Chief Executive Officer

Date: February 29, 2016

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

SIGNATURE	TITLE	DATE
/s/ Paolo Pucci Paolo Pucci	Chief Executive Officer and Director (Principal Executive Officer)	February 29, 2016
/s/ Peter S. Lawrence Peter S. Lawrence	President and Chief Operating Officer (Principal Financial Officer)	February 29, 2016
/s/ Robert J. Weiskopf Robert J. Weiskopf	Chief Financial Officer and Treasurer (Principal Accounting Officer)	February 29, 2016
/s/ Patrick J. Zenner Patrick J. Zenner	Director—Chairman of the Board	February 29, 2016
/s/ Timothy C. Barabe Timothy C. Barabe	Director	February 29, 2016
/s/ Susan L. Kelley Susan L. Kelley	Director	February 29, 2016
/s/ Ronald M. Lindsay Ronald M. Lindsay	Director	February 29, 2016
/s/ Michael D. Loberg Michael D. Loberg	Director	February 29, 2016
/s/ William G. Messenger William G. Messenger	Director	February 29, 2016