UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2015

OR

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

For the transition period from to

Commission file number: 001-32979

THRESHOLD PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**94-3409596**
(State or other jurisdiction of incorporation or organization)	**(IRS employer Identification number)**
170 Harbor Way, Suite 300, South San Francisco, CA 94080	**94080**
(Address of principal executive office)	**(Zip Code)**

(650) 474-8200

(Registrant's telephone number, including area code)

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

Title of Each Class	**Name of Each Exchange On Which Registered**
Common Stock, $0.001 Par Value Per Share	**The NASDAQ Stock Market LLC**
Series A Participating Preferred Stock, $0.001 Par Value Per Share	

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

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

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

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

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

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

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant based upon the closing price of the Common Stock on the NASDAQ Capital Market on June 30, 2015 was approximately $265,715,123. The calculation of the aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant excludes shares of Common Stock held by each officer, director and stockholder that the registrant concluded were affiliates on that date. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

On February 29, 2016 there were 71,511,425 shares of the Registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement for the Registrant's 2016 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A within 120 days of the Registrant's fiscal year ended December 31, 2015 are incorporated herein by reference into Part III of this Annual Report on Form 10-K.

Threshold Pharmaceuticals, Inc.
TABLE OF CONTENTS

PART I

This annual report on Form 10-K, including the sections entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended or the Exchange Act. We may, in some cases, use words such as "project," "believe," "anticipate," "plan," "expect," "estimate," "intend," "should," "would," "could," "potentially," "possible", "will," or "may," or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements may include statements about:

- the implementation of our business strategies, including our ability to pursue development pathways and regulatory strategies for evofosfamide (formerly TH-302);
- our ability to advance the development of our product candidates;
- our plans to pursue discussions and submissions with regulatory authorities, and the anticipated timing, scope and outcome of related regulatory actions or guidance;
- our ability to establish and maintain potential new partnering or collaboration arrangements for the development and commercialization of evofosfamide and tarloxotinib bromide or tarloxotinib (formerly referred to as TH-4000, PR610 or Hypoxin™);
- our financial condition, including our ability to obtain the funding necessary to advance the development of our product candidates;
- the anticipated progress of our product candidate development programs, including whether our ongoing and potential future clinical trials will achieve clinically relevant results;
- our ability to generate data and conduct analyses to support the regulatory approval of our product candidates;
- our ability to establish and maintain intellectual property rights for our product candidates;
- whether any product candidates that we are able to commercialize are safer or more effective than other marketed products, treatments or therapies;
- our ability to discover and develop additional product candidates suitable for clinical testing;
- our ability to identify, in-license or otherwise acquire additional product candidates and development programs;
- the ability of Eleison Pharmaceuticals Inc., ("Eleison"), our licensee of glufosfamide, to develop, manufacture, market and otherwise commercialize glufosfamide, and to raise sufficient funds to continue clinical development;
- our anticipated research and development activities and projected expenditures;
- our ability to complete preclinical and clinical testing successfully for new product candidates, such as tarloxotinib, that we may develop or license;
- our ability to have manufactured sufficient supplies of active pharmaceutical ingredient, or API, and drug product for clinical testing and commercialization;
- our ability to obtain licenses to any necessary third-party intellectual property;
- our ability to retain and hire necessary employees and appropriately staff our development programs;
- the sufficiency of our cash resources; and
- our projected financial performance.

There are a number of important factors that could cause actual results to differ materially from the results anticipated by these forward-looking statements. These important factors include those that we discuss in this annual report on Form 10-K under the caption "Risk Factors." You should read these factors and the other cautionary statements made in this annual report on Form 10-K as being applicable to all related forward-looking statements wherever they appear in this annual report on Form 10-K. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Unless the context requires otherwise, in this annual report on Form 10-K the terms "Threshold," "Threshold Pharmaceuticals," the "Company," "we," "us" and "our" refer to Threshold Pharmaceuticals, Inc. Threshold Pharmaceuticals, Inc., our logo and Metabolic Targeting are our trademarks. Other trademarks, trade names and service marks used in this annual report on Form 10-K are the property of their respective owners.

ITEM 1. BUSINESS

Overview

We are a clinical-stage biopharmaceutical company using our expertise in the tumor microenvironment to discover and develop therapeutic and diagnostic agents that selectively target tumor cells for the treatment of patients living with cancer. We are developing two therapeutic product candidates based on hypoxia-activated prodrug technology: evofosfamide and tarloxotinib. In December 2015, we announced topline results from two pivotal Phase 3 clinical trials of evofosfamide: TH-CR-406 conducted by Threshold in patients with soft tissue sarcoma and MAESTRO conducted by Merck KGaA, Darmstadt, Germany (", or Merck KGaA"), in patients with advanced pancreatic cancer. Based on our analysis of the TH-CR-406 study and Merck KGaA's analysis of the MAESTRO study, we reported that neither trial met its primary endpoint of demonstrating a statistically significant improvement in overall survival As a result, and following Merck KGaA's and our decision to discontinue joint development of evofosfamide under our former collaboration with Merck KGaA, in December 2015 we adopted a plan to reduce our operating expenses. The plan included a reduction of approximately 40 full-time employees in both research and development and general and administrative areas. In addition, we have discontinued enrollment in all company-sponsored clinical trials of evofosfamide as we conduct our analyses of the data from the clinical trials including our own analyses of the MAESTRO trial and evaluate potential next steps for the development of evofosfamide and tarloxotinib.

In January 2016, we announced that a sponsor-initiated interim futility analysis of the randomized, controlled Phase 2 trial (TH-CR-415) of evofosfamide, (or "the 415 trial"), was conducted by an independent Data Safety Monitoring Board (", or IDSMB"). IDSMB concluded that the trial was unlikely to reach its primary endpoint of improving overall survival with statistical significance. While evofosfamide plus pemetrexed demonstrated statistically significant improvement in progression-free survival (PFS) associated with a reduction in the risk of progression or death by approximately 30%, enrollment in the 415 trial was stopped. In January 2016 at the American Society of Clinical Oncology 2016 Gastrointestinal Cancers Symposium (ASCO GI), Merck KGaA's analyses of the results from the Phase 3 MAESTRO trial were presented. While the primary efficacy endpoint of overall survival narrowly missed statistical significance, efficacy endpoints of progression-free survival and confirmed overall response rates demonstrated significant improvements for patients treated with the combination of evofosfamide and gemcitabine (the "treatment arm") compared to gemcitabine plus placebo (the "control arm"). Of particular note, a meaningful improvement in overall survival was reported for a subgroup of 123 Asian patients (enrolled at Japanese and South Korean sites) in which the risk of death was reduced by 42 percent for patients on the treatment arm compared to patients on the control arm. The hazard ratio, (or "HR"), for this subgroup was 0.58 (95% confidence interval (or "CI": 0.36 – 0.93). In particular and based upon Merck's MAESTRO data, the 116 patients from Japan from the treatment arm had a median overall survival of 13.6 months versus 9.1 months for those patients on the control arm with significant improvements in progression free survival, objective response rates, and reductions in the pancreatic cancer biomarker, CA19-9. No new safety findings were identified in the MAESTRO study and the safety profile was consistent with that previously reported in other studies of evofosfamide plus gemcitabine. In March 2016, we and Merck KGaA agreed to terminate our former collaboration with Merck KGaA, and all rights to evofosfamide were returned to us. We are currently conducting additional analyses of data from the MAESTRO trial in pancreatic cancer. Pending the results of our analyses, we intend to discuss potential registration pathways with health regulatory authorities.

To date, evofosfamide has been studied in more than 1600 patients with cancer and has demonstrated anti-tumor activity as a monotherapy and in combination with other chemotherapeutics or targeted therapies across multiple types of solid tumors and in some hematological malignancies. The safety profile of evofosfamide has been consistent with manageable side-effects.

Our second product candidate, tarloxotinib, is a prodrug designed to selectively release a covalent (irreversible) EGFR tyrosine kinase inhibitor under hypoxic conditions. Aberrant EGFR signaling is implicated in the growth and spread of certain tumor types. Accordingly, tarloxotinib has the potential to effectively shut down aberrant EGFR signaling in a tumor-selective manner, thus potentially avoiding or reducing the systemic side effects associated with currently available EGFR tyrosine kinase inhibitors. Tarloxotinib is currently being evaluated in two Phase 2 proof-of-concept trials: one for the treatment of patients with mutant EGFR-positive, T790M-negative advanced non-small cell lung cancer progressing on an EGFR tyrosine kinase inhibitor, and the other for patients with recurrent or metastatic squamous cell carcinomas of the head and neck or skin. Threshold licensed exclusive worldwide rights to tarloxotinib from Auckland Uniservices Ltd in September 2014.

Our Strategy

Our goal is to be a leader in the development and commercialization of novel therapeutics for serious unmet needs in oncology. Key elements of our strategy are to:

- ***Develop evofosfamide successfully.*** Pending transfer of Merck KGaA-sponsored development activities to Threshold, we intend to complete our analyses of the data from the Phase 3 MAESTRO trial in patients with pancreatic cancer and analyze including available biomarker data with the goal of identifying additional subgroups of patients that may benefit from treatment with evofosfamide and gemcitabine. Pending the results of our analyses, we intend to review and present the results of our analyses of the data from the MAESTRO trial with health regulatory authorities to determine potential registration pathways. In parallel, we intend to evaluate and ultimately pursue additional therapeutic areas, development pathways and regulatory strategies to optimize the potential therapeutic applications of, and market opportunities for, evofosfamide. Our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development. In this regard, we are currently seeking a pharmaceutical partner for evofosfamide with a commercial presence in oncology in Japan.
- ***Obtain clinical proof-of-concept for tarloxotinib.*** We commenced two Phase 2 proof-of-concept trials of tarloxotinib in August 2015 to evaluate the efficacy, safety and tolerability of tarloxotinib administered as a single agent to patients with advanced non-squamous non-small cell lung cancer and patients with squamous cell carcinomas of the head and neck or skin. If the data are supportive and subject our ability to obtain additional funding, we may pursue clinical trials that support registration of tarloxotinib in these cancers. We are also currently determining third party interest in partnering or acquiring this asset.
- ***Broaden our pipeline by in-licensing or acquiring new product candidates.*** Subject to our ability to obtain additional funding, we intend to evaluate opportunities with academic institutions or pharma- and biopharmaceutical companies to potentially in-license or acquire new product candidates.

Our Product Candidates

Evofosfamide Investigational Hypoxia-Activated Prodrug

The introduction of therapies that preferentially target tumor hypoxia offers the potential to deliver cancer therapies selectively to tumor tissue and to expand the therapeutic options available for cancer patients across the majority of tumor types. Evofosfamide is designed as a prodrug that is preferentially activated under the extreme hypoxic conditions commonly found in tumors, but not typically in healthy tissues. Within regions of tumor hypoxia, evofosfamide is converted to its active form, bromo-isophosphoramide mustard (Br-IPM). Variants of IPM are clinically validated potent DNA alkylating agents, which kill tumor cells by causing DNA to crosslink thereby rendering cells unable to replicate their DNA and divide. Once activated in hypoxic tissues, Br-IPM can also diffuse into surrounding oxygenated regions of the tumor and kill cells there via a “bystander effect”.

Preclinical and clinical data suggest that evofosfamide has significant antitumor activity both alone as well as in combination with other cancer therapies that target the rapidly proliferating cells found in normally oxygenated regions of solid tumors. Preclinical studies have also shown enhanced antitumor activity of evofosfamide when combined with antiangiogenic agents, which are drugs designed to disrupt the blood vessel network supplying tumors. The underlying biological rationale for this enhanced activity is based, in part, on evidence that antiangiogenic agents increase levels of tumor hypoxia. Other research suggests that the bone marrow of patients with leukemia as well as multiple myeloma is also highly hypoxic and supports the potential therapeutic utility of evofosfamide in treating these blood cancers.

Evofosfamide Clinical Development Program Overview

The current development plan for evofosfamide is focused on analyzing the MAESTRO data for the purposes of pursuing potential registration pathways in pancreatic cancer with regulatory authorities and potential partners In addition, we will continue developing evofosfamide in combination with antiangiogenics in investigator sponsored clinical trials as supported by preclinical and clinical data and where there is high unmet need for new anticancer agents. To date, evofosfamide has been evaluated in more than 1600 patients with cancer.

We completed a monotherapy, Phase 1 clinical trial that determined the maximum tolerated dose, dose limiting toxicities, safety, pharmacokinetics and preliminary efficacy of evofosfamide monotherapy in patients with advanced solid tumors. We expanded enrollment in this trial to investigate evofosfamide as a single agent in specific indications in which monotherapy activity had been observed as well as in some indications in which notable activity had been documented in combination with other chemotherapy drugs. We completed enrollment in two combination therapy Phase 1/2 clinical trials that determined the maximum tolerated doses, dose-limiting toxicities, safety, pharmacokinetics and preliminary efficacy of evofosfamide in combination with four currently approved chemotherapies. Data from this collection of clinical trials supported our initial randomized controlled trial of evofosfamide in first-line pancreatic cancer.

The most advanced clinical trials of evofosfamide conducted to date were two pivotal Phase 3 clinical trials: one in combination with doxorubicin versus doxorubicin alone in patients with soft tissue sarcoma, and the other in combination with gemcitabine versus gemcitabine plus placebo in patients with advanced pancreatic cancer. Initiation of those Phase 3 clinical trials was supported by preclinical data in disease-specific models as well as data from Phase 2 clinical trials in the same patient populations.

In December 2015, we announced topline results from both Phase 3 clinical trials of evofosfamide, reporting that neither trial met its primary endpoint of improving overall survival with statistical significance. In January 2016, we announced that a sponsor-initiated interim futility analysis of a Phase 2 clinical trial of evofosfamide in patients with non-squamous non-small cell lung cancer was conducted by an IDSMB. The IDSMB concluded that the trial was unlikely to reach its primary endpoint of improving overall survival with statistical significance; consequently, enrollment was halted in that trial and in all company-sponsored trials of evofosfamide.

In March 2016, we and Merck KGaA agreed to terminate our former collaboration with Merck KGaA, and all rights to evofosfamide were returned to us. A a result, we will not any receive any clinical development milestones or any other funding from Merck KGaA for the purpose of conducting any further clinical development of evofosfamide. Under our former collaboration with Merck KGaA, was responsible for 70% of the worldwide development expenses for evofosfamide. Our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development. Accordingly, at this time in 2016 we currently only plan to analyze clinical data from all of the evofosfamide clinical trials with primary focus on the MAESTRO data for the purposes of pursuing discussions of development in pancreatic cancer with regulatory authorities and potential partners as well as to continue investigator sponsored studies of evofosfamide in combination with antiangiogenics.

Outcome and Status of Evofosfamide Program in Soft Tissue Sarcoma

In partnership with the Sarcoma Alliance for Research through Collaboration (SARC), we conducted an international, randomized, pivotal Phase 3 clinical trial of evofosfamide in patients with metastatic or locally advanced unresectable soft tissue sarcoma who had not previously received chemotherapy. The trial, which we refer to as the "406 trial", was designed to evaluate the efficacy and safety of evofosfamide in combination with doxorubicin, compared to doxorubicin alone. The primary endpoint in the 406 trial was overall survival; secondary endpoints included efficacy measured by progression-free survival, overall response rate, overall survival at 6 and 12 months, progression-free rate at 3 months and progression-free rate at 6 months, duration of response, stable disease or better rate, change in Eastern Cooperative Oncology Group, or ECOG, and performance status, as well as assessments of safety and tolerability, pharmacokinetics and biomarkers.

In December 2015, we announced top-line results from the 406 trial reporting that evofosfamide in combination with doxorubicin did not demonstrate a statistically significant improvement in overall survival, or OS, compared to doxorubicin alone (HR: 1.06; 95% CI: 0.88 - 1.29). Median OS on the control arm was 19 months, which was significantly longer than the 12 months which was anticipated based on historical data and longer than data reported in other randomized controlled trials.

This 406 trial for evofosfamide was initiated following results from a multi-center, dose-escalation Phase 1/2 trial of evofosfamide in patients with soft tissue sarcoma (which we refer to as the 403 trial). The 403 trial was designed to determine the safety, efficacy and pharmacokinetics of evofosfamide in combination with full-dose doxorubicin in patients with soft tissue sarcoma followed by evofosfamide maintenance monotherapy for patients who had not progressed after six cycles of combination therapy. Dose-limiting toxicities at an evofosfamide dose of 340 mg/m^2 were Grade 4 thrombocytopenia and Grade 3 infection with Grade 4 neutropenia. The maximum tolerated dose (MTD) of 300 mg/m^2 was established for evofosfamide in combination with the approved dose of 75 mg/m^2 doxorubicin with prophylactic growth factor support. Enrollment was expanded at the MTD, and a total of 91 patients with advanced soft tissue sarcoma previously untreated with systemic chemotherapy were enrolled and treated at the MTD.

We intend to present detailed results of the 406 trial at a future medical meeting. We do not intend to pursue further development of evofosfamide in soft tissue sarcoma.

Outcome and Status of Evofosfamide Program in Pancreatic Cancer

In December 2012, Merck KGaA opened the global pivotal Phase 3 MAESTRO clinical trial assessing the efficacy and safety of evofosfamide in combination with gemcitabine in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma. MAESTRO stands for evofosfamide in the treatment of **M**etast**A**tic or unr**ES**ectable pancrea**T**ic adenoca**R**cin**O**ma.

The MAESTRO trial was a randomized, placebo-controlled, international, multi-center, double-blind Phase 3 clinical trial of evofosfamide plus gemcitabine compared with placebo plus gemcitabine conducted by Merck KGaA. In November 2014, we announced that Merck KGaA completed the target enrollment of 660 patients in the trial. The primary efficacy endpoint was OS; the secondary endpoints included efficacy measured by progression-free survival, or PFS, overall response rate and disease control rate, as well as assessments of safety and tolerability, pharmacokinetics and biomarkers. The study was being conducted under an Special Protocol Assessment, or SPA, agreement with the FDA.

In December 2015, we announced top-line results based on Merck KGaA's analysis that patients treated with evofosfamide in combination with gemcitabine did not demonstrate a statistically significant improvement in OS compared with gemcitabine plus placebo. In January 2016 at the American Society of Clinical Oncology 2016 Gastrointestinal Cancers Symposium (ASCO GI), Merck KGaA's analyses of the results from the Phase 3 MAESTRO trial were presented. Median OS was 8.7 months for patients treated with evofosfamide plus gemcitabine and 7.6 months for patients treated with placebo plus gemcitabine (HR: 0.84; 95% CI: 0.71 - 1.01; p=0.0589). The survival on the control arm was higher than the 6 to 7 months reported in other randomized controlled trials. While the primary efficacy endpoint of overall survival narrowly missed statistical significance, efficacy endpoints of progression-free survival and confirmed overall response rates demonstrated significant improvements for patients treated with the combination of evofosfamide and gemcitabine (the "treatment arm") compared to gemcitabine plus placebo (the "control arm") including PFS and objective response rate, or ORR. For patients treated with evofosfamide plus gemcitabine, median PFS was longer (5.5 vs. 3.7 months; HR 0.77; 95% CI: 0.65- 0.92; p=0.004) and confirmed ORR was higher (15.2% vs. 8.6%; Odds ratio = 1.90; 95% CI: 1.16-3.12; p=0.009). Of particular note, a meaningful improvement in overall survival was reported for a subgroup of 123 Asian patients (enrolled at Japanese and South Korean sites) in which the risk of death was reduced by 42 percent for patients on the treatment arm compared to patients on the control arm. The hazard ratio, (or "HR"), for this subgroup was 0.58 (95% confidence interval (or "CI": 0.36 – 0.93). In particular and based upon Merck's MAESTRO data, the 116 patients from Japan from the treatment arm had a median overall survival of 13.6 months versus 9.1 months for those patients on the control arm with significant improvements in progression free survival, objective response rates, and reductions in the pancreatic cancer biomarker, CA19-9. No new safety findings were identified in the MAESTRO study and the safety profile was consistent with that previously reported in other studies of evofosfamide plus gemcitabine. . Grade 3/4 hematologic adverse events were more frequent with evofosfamide plus gemcitabine, which is consistent with the safety profile in other studies.

We are analyzing data from the MAESTRO trial. Pending the results of our analyses, weintend to review and discuss the results of our analyses of the data from the MAESTRO trial with health regulatory authorities, to determine potential registration pathways. Detailed results from our analyses of the MAESTRO trial will be presented at a future medical meeting.

The MAESTRO trial was initiated following results from a randomized, controlled Phase 2b clinical trial of evofosfamide in combination with gemcitabine in patients with first-line pancreatic cancer (which we refer to as the 404 trial). A total of 214 patients with previously untreated, locally advanced, unresectable or metastatic pancreatic adenocarcinoma were enrolled and treated in the clinical trial at 45 sites in the U.S. Patients were randomized equally into one of three cohorts: evofosfamide at a dose of 240 mg/m^2 plus gemcitabine or evofosfamide at a dose of 340 mg/m^2 plus gemcitabine or gemcitabine alone. If a patient's cancer progressed while on gemcitabine alone, the patient could crossover and be randomized into one of the evofosfamide plus gemcitabine cohorts. The primary efficacy endpoint of the trial was a comparison of progression-free survival between the two pooled combination arms and the gemcitabine alone arm. The secondary endpoints were overall response rate, overall survival, event-free survival, CA 19-9 (a serum biomarker) response rate as well as various safety parameters.

In February 2012, we announced top-line results that the primary endpoint in the 404 trial was achieved, showing a median progression-free survival of 5.6 months for patients treated with the combination of evofosfamide at 240 mg/m^2 and 340 mg/m^2 compared with 3.6 months for patients treated with gemcitabine alone. The progression-free survival hazard ratio comparing the evofosfamide combinations to gemcitabine alone was 0.61 (95% CI: 0.43 – 0.87), which was highly statistically significant (p=0.005). Final results of the 404 trial were published in the December 15, 2014 issue of the *Journal of Clinical Oncology* and were consistent with previously-reported results. The final results from the 404 trial showed a consistent dose effect in terms of improved progression-free survival, increased objective response rate, and decreased CA 19-9 levels in the gemcitabine plus evofosfamide (340 mg/ m^2) arm compared with the gemcitabine plus evofosfamide (240 mg/ m^2) and the gemcitabine-alone arms. There was a significant improvement (p=0.008) in progression-free survival associated with a 41% reduction of risk for disease progression or death for patients treated with gemcitabine plus evofosfamide (340 mg/ m^2). This represented a 2.4-month increase in median progression-free survival for patients receiving gemcitabine plus evofosfamide (340 mg/ m^2) compared with gemcitabine alone. The 12-month overall survival rates were also in favor of the gemcitabine plus evofosfamide (340 mg/ m^2) treatment group compared with the control arm (38% vs. 26% (p=0.13)). Median overall survival for gemcitabine, gemcitabine plus evofosfamide (240 mg/ m^2), and gemcitabine plus evofosfamide (340 mg/ m^2) was 6.9, 8.7, and 9.2 months, respectively; the differences between treatment groups were not significant, which may be at least partially explained by control arm patients with progressive disease crossing over to one of the gemcitabine plus evofosfamide treatment arms. In other words, we believe that patients receiving gemcitabine alone who crossed over to receive gemcitabine plus evofosfamide upon disease progression contributed to the survival of the control arm. The improvement in median overall survival in the gemcitabine plus evofosfamide treatment arms was consistent with the improvement in median progression-free survival. The most common nonhematologic adverse events were fatigue, nausea and peripheral edema, and were similar in frequency across treatment groups. Skin and mucosal toxicities, predominantly Grade 1 and 2, and myelosuppression, were the most common adverse events related to evofosfamide and did not result in increases in treatment discontinuation. Adverse events leading to discontinuation of study treatment as well as serious adverse events were balanced across all treatment arms. All other severe adverse events were generally below 10%. There was no significant difference in the percentage of patients discontinuing treatment for adverse events across the three treatment arms.

In March 2014, we announced that Merck KGaA initiated a Phase 1 dose escalation study assessing the safety, tolerability and anti-tumor activity of evofosfamide in combination with gemcitabine and nab-paclitaxel (Abraxane ®) in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma. Enrollment in this trial has been discontinued.

Outcome and Status of Evofosfamide Program in Non-Squamous Non-Small Cell Lung Cancer

In July 2014, we announced the initiation of a 440-patient, randomized, double-blind, placebo-controlled trial of evofosfamide in combination with pemetrexed in patients with second-line advanced non-squamous non-small cell lung cancer (which we refer to as the 415 trial). This international Phase 2 trial was designed to support registration and to compare the combination of evofosfamide plus pemetrexed versus the combination of pemetrexed plus placebo as second-line therapy in this patient population. An evofosfamide dose of 400 mg/m^2 was utilized in combination with full-dose pemetrexed. OS was the primary endpoint; secondary endpoints included safety and assessment of anti-tumor activity as determined by PFS and ORR.

Following the topline results from the two Phase 3 clinical trials, Threshold and Merck KGaA decided to unblind the 415 trial and conduct an interim futility analysis. In January 2016, we announced that a total of 265 patients were enrolled and 112 events (deaths) were reported at the time of the interim analysis. An IDSMB conducted the analysis and concluded that the trial was unlikely to reach its primary endpoint of improving OS with statistical significance. As a result, further enrollment in this trial was closed. Additional findings from the interim analysis indicated that evofosfamide plus pemetrexed demonstrated longer PFS associated with a reduction in the risk of progression or death by approximately 30%. No new safety findings were reported. Data for this trial will be finalized and results presented at a future medical meeting. We do not have plans to pursue further development of evofosfamide in NSCLC at this time.

Outcome and Status of Evofosfamide Program in Advanced Melanoma

In August 2013, we announced the start of a Phase 2 clinical trial to evaluate the efficacy and safety of evofosfamide in patients with melanoma. The study was designed to investigate a range of biomarkers including serum, tumor biopsy, and PET imaging hypoxia biomarkers that may predict treatment outcomes and be associated with tumor response to evofosfamide therapy. The Phase 2 clinical trial was a single-arm, multi-center study investigating the clinical efficacy and safety of evofosfamide administered at 480 mg/m^2 weekly on a 28-day cycle (three weeks on, one week off) in up to 40 patients with advanced melanoma. The primary endpoint was three-month PFS. Secondary endpoints included response rate, duration of response, OS, safety and evaluation of potential imaging, serum, and tissue biomarkers that may be associated with tumor response and predict for efficacy and safety of evofosfamide therapy.

In July 2015, Threshold announced it was is in the process of closing the Phase 2 clinical trial of evofosfamide in patients with melanoma due to a slower than anticipated enrollment rate in light of the evolving treatment landscape and new therapeutic options for patients with melanoma since the trial began.

We do not have plans to pursue further development of evofosfamide in advanced melanoma at this time.

Outcome and Status of Evofosfamide Program in Hematological Malignancies: Leukemia and Multiple Myeloma

The role of hypoxia in the pathogenesis of hematological malignancies (also known as blood cancers, for example, leukemias and multiple myeloma) and its role in disease progression is an emerging area of active research in the cancer biology community. Preclinical studies have been conducted to investigate evofosfamide in models of multiple myeloma. *In vitro* studies demonstrated that evofosfamide induces apoptosis (programmed cell death) and has strong synergistic cytotoxic effect in combination with bortezomib, a proteasome inhibitor indicated for the treatment of patients with multiple myeloma. *I*n *vivo* models of multiple myeloma demonstrated that the combination of evofosfamide plus bortezomib was associated with statistically significant improvements in multiple disease parameters including a reduction in circulating paraprotein levels, the standard endpoint for assessing drug efficacy in multiple myeloma. Preclinical studies have also investigated evofosfamide in models of leukemia. Evofosfamide treatment resulted in marked *in vitro* hypoxic-specific cell death of human leukemia cells under the same conditions where traditional chemotherapeutic agents such as cytarabine and doxorubicin were not effective. *In vivo*, evofosfamide treatment significantly inhibited leukemia disease progression in a preclinical model of human leukemia. These studies in hematological malignancy models provide the basis for our clinical trials of evofosfamide in patients with multiple myeloma and leukemia.

TH-CR-407 Phase 1 trial in patients with advanced leukemias

In June 2010, we initiated a Phase 1 open label clinical trial of evofosfamide designed to determine the maximum tolerated dose, dose limiting toxicity, safety, tolerability, clinical activity, and pharmacokinetics of evofosfamide in patients with advanced leukemia (which we refer to as the 407 trial). The starting dose of evofosfamide was 120 mg/m^2 administered daily for 5 days of a 21-day cycle. At the highest dose investigated in this study (550 mg/m^2), two patients developed dose limiting mucosal toxicity. The maximum tolerated daily dose of evofosfamide was established at 460 mg/m^2. Early results of this trial suggested activity of evofosfamide monotherapy as evidenced by stabilization or reduction of bone marrow and peripheral blast counts in some patients. Thus, a second dosing regimen was evaluated in which evofosfamide was administered as a continuous infusion over a 5-day period.

In December 2013, updated results were presented at the 55th Annual Meeting of the American Society of Hematology (ASH). A total of 49 patients with previously treated acute myeloid leukemia, or AML (n=39), acute lymphoblastic leukemia or ALL (n=9) or chronic myeloid leukemia, or CML in the blast phase (n=1) initiated therapy with evofosfamide. In the first part of the trial, a total of 38 patients received 30-minute bolus administration of evofosfamide at escalating doses of 120—550 mg/ m^2 (depending on the dose cohort) daily on days 1-5 of a 21-day cycle. In the second part of the trial, a total of 11 patients received evofosfamide as a continuous infusion on days 1-5 of a 21-day cycle. Two of three patients treated with continuous infusion of evofosfamide (460 mg/ m^2/day) experienced dose-limiting toxicities of Grade 3 mucositis or Grade 3 hyperbilirubinemia; continuous administration maximum-tolerated dose was established at 330 mg/ m^2/day.

Generally, a significant rapid cytoreduction was documented early in Cycle 1, but was not maintained prior to initiation of the next cycle. Two AML patients who received 550 mg/ m^2 bolus evofosfamide had complete resolution of leukemia cutis. One AML patient at 550 mg/m^2 bolus evofosfamide had a complete response with incomplete platelet recovery (CRp), and one AML patient at 440 mg/m^2 bolus evofosfamide had a complete response.

The 407 trial was completed and all patients discontinued treatment. We do not have plans to pursue further development of evofosfamide as a monotherapy in leukemia at this time.

TH-CR-408 Phase 1/2 Trial in Patients with Multiple Myeloma

In March 2012, we initiated a Phase 1/2 open label clinical trial of evofosfamide to determine the maximum tolerated dose, dose limiting toxicity, safety, tolerability, clinical activity, and pharmacokinetics of evofosfamide and dexamethasone with and without bortezomib (Velcade®), a proteasome inhibitor, in patients with relapsed/refractory multiple myeloma (which we refer to as the 408 trial). The study design included three parts to establish the maximum tolerated dose of evofosfamide in combination with dexamethasone (Part A), (evaluate the combination of evofosfamide with dexamethasone at the established maximum tolerated dose (Part B), and evaluate the combination of evofosfamide and dexamethasone with bortezomib, currently used to treat patients with multiple myeloma) (Part C).

The dose of evofosfamide administered in the Part A dose escalation portion of the study was 240, 340, or 480mg/m^2 (depending on the dose cohort into which a patient enrolled) given on days 1, 4, 8, and 11 of a 21-day cycle, with 40 mg dexamethasone given on the same days as evofosfamide. As presented at the annual meeting of the American Society of Hematology (ASH) in December 2013, the maximum tolerated dose of evofosfamide was established at 340 mg/m^2. Dose-limiting toxicities of Grade 3 stomatitis were reported during the first treatment cycle for the first two patients treated at 480 mg/m^2 evofosfamide; therefore, the maximum tolerated dose of evofosfamide was established at 340 mg/m^2. In May 2014, preliminary results were presented at the annual meeting of the American Society for Clinical Oncology (ASCO) ondata from 24 patients in the dose-escalation and dose-expansion portions of the study who initiated treatment prior to March 1, 2014; analyses reflected the clinical database as of May 19, 2014. Of these 24 patients, 17 were treated at the maximum tolerated dose of evofosfamide. Patients had received a median of 6.5 systemic therapies prior to enrollment. The most common adverse events related to evofosfamide occurring in at least 25% of patients were nausea and fatigue. The most common Grade 3/4 hematologic adverse events related to evofosfamide were thrombocytopenia (29%) and leukopenia (25%). Of the 24 patients included in the ASCO presentation, 23 were evaluable for response. According to modified International Myeloma Working Group (IMWG) criteria, best responses included four partial responses (4 PR), two minimal responses (2 MR), and 15 stable disease (15 SD) assessments; two patients had progressive disease (2 PD). The clinical benefit rate for patients treated at the maximum tolerated dose of evofosfamide (n=16 evaluable patients) was 31% (comprised of 3 PR and 2 MR).

In July 2014, we announced initiation of the third and final part of the trial designed to investigate evofosfamide in combination with the proteasome inhibitor bortezomib (Velcade®) and low-dose dexamethasone. In December 2014, preliminary results from this portion of the trial were reported at the 56th ASH Annual Meeting and Exposition, or ASH 2014. At ASH 2014, preliminary safety and efficacy analyses from 9 patients were presented. The recommended Phase 2 dose of evofosfamide was established at 340 mg/m^2 and no dose limiting toxicities were observed in the 6 patients treated at this dose level. Safety data were available for 8 of 9 patients. The most common Grade 3/4 hematological adverse events were thrombocytopenia (reported in 4 patients), anemia (reported in 2 patients), and lymphopenia (reported in 2 patients). Fatigue (reported in 5 patients; one Grade 3/4) and nausea (reported in 4 patients; one Grade 3/4) were the most common non-hematological adverse events. Five serious adverse events (SAEs) were reported in 4 patients. One SAE of thrombocytopenia was considered related to evofosfamide. Skin toxicity, an adverse event of interest with evofosfamide, was limited: a Grade 2 rash resulting in treatment delay was reported at the 240 mg/m^2 dose of evofosfamide, and one Grade 2 skin lesion with no impact on treatment was reported at the 340 mg/m^2 dose of evofosfamide. Based on IMWG criteria and our preliminary assessment of clinical activity, partial responses (one very good partial response and one partial response) were observed in 2 of 7 (29%) evaluable patients overall and 2 of 4 (50%) evaluable patients at the recommended Phase 2 dose of evofosfamide. In May 2015, Threshold presented updated data at ASCO. A clinical benefit rate of 29% (one complete response, two partial responses, and one minimal response) was observed in 4 of 14 patients treated at the recommended Phase 2 dose of evofosfamide (340 mg/m^2). These patients had already received multiple types of treatment prior to enrollment including a median of 3 prior bortezomib-containing regimens. The most common adverse events were thrombocytopenia and anemia and no patients discontinued treatment due to an adverse event.

Enrollment in this trial has been completed. We do not have plans to pursue further development of evofosfamide as a monotherapy in multiple myeloma at this time.

Evofosfamide Programs with Antiangiogenics

Antiangiogenics are a relatively new class of anticancer therapies that target the tumor vasculature. A goal of antiangiogenic therapy is to “starve” tumors by disrupting the blood vessel network supplying tumors with oxygen and nutrients needed for survival and growth. While antiangiogenics have proven to be an important new class of targeted cancer therapy, essentially all tumors eventually become resistant to these treatments. Emerging preclinical research suggests that antiangiogenics may also induce tumor hypoxia. Co-targeting tumor angiogenesis and tumor hypoxia, which is believed to be a key driver of treatment resistance, is one approach to potentially prevent or reverse this mechanism of treatment resistance. As evofosfamide is designed to be selectively activated under conditions of severe tumor hypoxia, the combination of evofosfamide with antiangiogenic therapy has the potential to be an effective anticancer treatment. Preclinical models demonstrated enhanced antitumor activity of evofosfamide when used in combination with antiangiogenic therapies (sunitinib and sorafenib), which was directly related to the amount of hypoxia induced by different doses of these antiangiogenics.

Based on preclinical studies, evofosfamide has been or is under investigation in combination with antiangiogenic therapies in a variety of tumor types in human clinical trials including:

- TH-CR-410: A Threshold-sponsored Phase 1 trial that evaluated the safety of evofosfamide in combination with sunitinib in patients with advanced renal cell carcinoma (RCC), gastrointestinal stromal tumors (GIST), and pancreatic neuroendocrine tumors (pNET). All patients have completed the study.
- EMR 200592-012: A Phase 2 Investigator Sponsored Trial to assess the activity and safety of evofosfamide in combination with sunitinib in patients with well- and moderately-differentiated metastatic pancreatic neuroendocrine tumors (pNET) that are naïve to systemic treatment.
- TH-IST-4003: A Phase 1/2 Investigator Sponsored Trial evaluating the safety and efficacy of evofosfamide in combination with bevacizumab in patients with recurrent glioblastoma following bevacizumab failure.
- TH-IST-4008: A Phase 2 FDA-funded Investigator Sponsored Trial evaluating the safety and efficacy of evofosfamide in combination with bevacizumab in patients with recurrent glioblastoma following bevacizumab failure.
- TH-IST-4001: A Phase 1 Investigator Sponsored Trial evaluating the safety of evofosfamide in combination with pazopanib in patients with advanced solid tumors.
- TH-IST-4004: A Phase 1/2 Investigator Sponsored Trial of evofosfamide in combination with sorafenib in patients with advanced kidney cancer or liver cancer that cannot be removed by surgery.

TH-CR-410 Phase 1 dose escalation trial of evofosfamide and sunitinib in patients with RCC, GIST, and pNET

The 410 trial was designed to evaluate standard full dose sunitinib (50 mg) administered daily (Days 1 – 28 of a 6-week cycle) with evofosfamide (240 mg/m^2 to 480 mg/m^2) administered on days 8, 15 and 22. In 2013, preliminary data from the 410 trial were published online in the ASCO 2013 Annual Meeting Proceedings, and updated preliminary results from 12 patients were reported at the 2013 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics. As reported at AACR-NCI-EORTC, no dose-limiting toxicities were observed in the 4 patients treated in the initial cohort at 240 mg/ m^2. One of 6 evaluable patients treated at 340 mg/m^2 had a dose-limiting toxicity of Grade 3 stomatitis. Grade 3 thrombocytopenia and neutropenia were reported in 3 (25%) and 4 (33%) patients, respectively; Grade 4 neutropenia was reported in one patient (8%). Fatigue, nausea, and vomiting were the most common nonhematologic adverse events occurring in 83%, 75%, and 67% of patients, respectively. All cases were Grade 1 or 2 except for one report of Grade 3 nausea. Partial responses were achieved by one of four (25%) evaluable GIST patients (confirmed) and three of eight (37.5%) evaluable RCC patients (one confirmed). All four patients with partial responses had received prior sunitinib.

Enrollment in this trial has been completed, and all patients have discontinued from the trial. The recommended Phase 2 dose of evofosfamide (340 mg/ m^2) was established and is being evaluated further in an Investigator Sponsored Trial of evofosfamide in combination with sunitinib in patients with pancreatic neuroendocrine tumors (pNET) (see below).

EMR 200592-012: A Phase 2 trial of evofosfamide in combination with sunitinib in patients with pNET

The -012 trial is an Investigator-Sponsored Phase 2 trial designed to assess the activity and safety of evofosfamide in combination with sunitinib in patients with well- and moderately-differentiated metastatic pancreatic neuroendocrine tumors (pNET) who are naïve to systemic treatment. The study is being sponsored by the Spanish Task Force in Neuroendocrine Tumors.

Enrollment in this Investigator Sponsored Trial commenced in 2015 and it is currently closed. After completion of the study, we will assess whether further development of evofosfamide in combination with sunitinib in patients with pNET is warranted.

TH-IST-4003: Phase 1/2 trial of evofosfamide *and bevacizumab in patients with glioblastoma (GBM) following bevacizumab failure*

The 4003 trial is a U.S. investigator-sponsored Phase 1/2 clinical trial evaluating evofosfamide in combination with Avastin® (bevacizumab) in patients with recurrent glioblastoma (GBM) following bevacizumab failure. Surgical resection followed by concomitant radiotherapy and chemotherapy is the standard of care for patients with newly-diagnosed GBM. Single-agent bevacizumab is the only FDA-approved therapy for GBM patients with progressive disease following prior therapy. After disease progression on bevacizumab, patients may start a subsequent bevacizumab-containing regimen.

Preliminary results from the 4003 trial were reported at the ESMO 2012 Congress, the 2013 Scientific Meetingand Education Day of the Society for Neuro-Oncology, or SNO, and most recently at SNO in November 2014. As reported by Andrew J. Brenner, M.D., Ph.D., the study principal investigator at SNO 2014, a total of 23 patients in the Phase 1/2 study were treated with bevacizumab 10 mg/kg every two weeks and evofosfamide dose escalated 240 – 670 mg/m^2 every two weeks (four-week cycle) until disease progression. Patients had received a median of three prior systemic anticancer regimens including both chemoradiation and bevacizumab. No Grade 4 adverse events were observed. Three Grade 3 adverse events in three patients were observed: skin ulceration at 340 mg/m^2, thrombocytopenia at 670 mg/m^2, and oral mucositis at 670 mg/m^2. Primary evofosfamide-related toxicities were mucosal, but were not dose-limiting: rectal mucositis in one of four (1/4) patients at 480 mg/m^2 and all patients (13/13) at 670 mg/m^2 (all Grade 1 or 2). Oral mucositis was less frequent. Best tumor responses in 22 patients evaluable by Response Assessment in Neuro-Oncology (RANO) criteria included one complete response and three partial responses for a response rate of 18%, and ten stable disease assessments for a clinical benefit rate of 64%; eight patients had progressive disease. Median progression-free survival was 2.8 months (95% CI: 1.9 to 3.9 months) and 4-month progression-free survival was 22% (95% CI: 3.2% to 41%). Median overall survival was 4.6 months (95% CI: 3.4 to 6.2 months).

Enrollment has been completed in this investigator-sponsored trial, and the recommended Phase 2 dose of evofosfamide was established at 670 mg/ m^2 in combination with 10 mg/kg bevacizumab administered every other week. In 2014, the investigator received funding from the FDA to conduct a multiple-center Phase 2 trial of evofosfamide at the recommended Phase 2 dose in combination with bevacizumab in this patient population, as described below. After completion of the study, we will assess whether further development of evofosfamide and bevacizumab in patients with glioblastoma (GBM) following bevacizumab failure is warranted.

TH-IST-4008: FDA-funded Phase 2 Investigator Sponsored Trial in GBM

In September 2014, the FDA, through its Office of Orphan Product Development, awarded Dr. Brenner a grant for a Phase 2 clinical trial of evofosfamide for the treatment of GBM, which we refer to as TH-IST-4008. Dr. Brenner's investigator-sponsored Phase 2 trial, which is designed to assess safety and efficacy of 670 mg/m^2 evofosfamide in combination with bevacizumab for the treatment of recurrent GBM following prior bevacizumab failure, is expected to enroll up to 33 patients. PET imaging will also be conducted in an effort to predict which patients may benefit from evofosfamide combination therapy. Dana Farber Cancer Institute and The University of Texas at Austin will participate in the trial.

Enrollment in this Investigator Sponsored Trial commenced in 2015 and is ongoing. After completion of the study, we will assess whether further development of evofosfamide in patients with GBM is warranted.

TH-IST-4001: Phase 1 dose escalation trial of evofosfamide and pazopanib in patients with advanced solid tumors

The 4001 trial evaluated evofosfamide in combination with pazopanib in patients with advanced solid tumors. Results were reported at the 2013 AACR-NCI-EORTC annual meeting for the 30 patients enrolled with a variety of solid tumors for whom standard therapy or palliative measures were nonexistent or no longer effective. The clinical benefit rate was 76% (n=25 evaluable patients) with three patients with partial responses (12%) and 16 patients with stable disease (64%). The partial responses were observed in patients with neuroendocrine cancer, ovarian cancer, and chondrosarcoma. Treatment-related Grade 3 hematological adverse events were reported for neutropenia (7%), thrombocytopenia (7%), and anemia (13%). Treatment-related, Grade $\geq$ 2 nonhematologic adverse events included vomiting/nausea/diarrhea (7% Grade 3), mucositis (7% Grade 3), hand foot syndrome (all Grade 2), and hypertension (all Grade 2). No Grade 4 adverse events have been reported.

The 4001 Investigator Sponsored Trial has completed enrollment. There are no current plans for further investigation of evofosfamide in combination with pazopanib at this time.

TH-IST-4004: A Phase 1/2 Investigator Sponsored Trial of evofosfamide in combination with sorafenib in patients with advanced kidney cancer or hepatocellular cancer

Study 4004 is a Phase 1/2 Investigator Sponsored Trial designed to evaluate the safety and efficacy of evofosfamide in combination with sorafenib (Sutent®)) in patients with advanced kidney cancer or liver cancer that cannot be removed by surgery. The primary objectives of the Phase 1 portion are to determine the maximum-tolerated dose and recommended Phase 2 dosing for the combination of sorafenib and evofosfamide; overall response rate in patients with advanced hepatocellular cancer will be assessed in the Phase 2 portion.

This Investigator Sponsored Trial completed enrolling patients in the Phase 1 portion of the study. After completion of the study, we will assess whether further development of evofosfamide in combination with sorafenib in patients with advanced hepatocellular cancer is warranted.

Tarloxotinib Investigational Hypoxia-Activated EGFR Tyrosine Kinase Inhibitor

Overview

In 2014, Threshold licensed exclusive worldwide rights to tarloxotinib from Auckland Uniservices Ltd. Tarloxotinib is a prodrug designed to selectively release a covalent (irreversible) EGFR tyrosine kinase inhibitor, or TKI, under severe hypoxia, a feature of many solid tumors. Accordingly, tarloxotinib has the potential to effectively shut down aberrant EGFR signaling in a tumor-selective manner, thus potentially avoiding or reducing the systemic side effects associated with currently available EGFR TKIs. Tarloxotinib is currently under investigation in two Phase 2 proof-of-concept trials: one for the treatment of patients with mutant EGFR-positive, T790M-negative advanced NSCLC progressing on an EGFR TKI, and the other for patients with recurrent or metastatic squamous cell carcinomas of the head and neck, or SCCHN, or skin, or SCCS. These types of cancers are currently treated with drugs that block the activity of EGFR to interfere with tumor cell growth, but most tumors ultimately become resistant to therapy, and some do not respond at all.

Preclinical tarloxotinib data

In April 2015, we presented preclinical data on tarloxotinib at the annual meeting of the American Association for Cancer Research, or AACR, demonstrating that tarloxotinib is a pan-ErbB inhibitor, releasing a potent irreversible TKI of wild-type EGFR, mutant EGFR and HER2. In a xenograft model of NSCLC in mice, which was heterozygous for wild-type, or WT, and mutant (deletion 19) EGFR, a single dose of tarloxotinib (equivalent to 20 mg/m^2 in humans) showed prolonged prodrug residency and EGFR shutdown in tumor tissue for a week. In addition, while treatment with erlotinib alone resulted in only modest benefit, treatment with tarloxotinib resulted in 9 out of 9 complete responses, suggesting an ability to prevent or overcome resistance to TKI treatment. Furthermore, the xenograft model was determined to be only 8% hypoxic, suggesting that the complete responses observed with tarloxotinib were due to the ability of tarloxotinib, once hypoxia-activated, to diffuse into the surrounding normoxic tumor tissue. Preclinical data presented also demonstrated that tarloxotinib is highly active against WT EGFR-driven tumors, whereas approved EGFR TKIs are substantially less active. We believe the design of tarloxotinib allows WT EGFR signaling in tumor tissue to be targeted via hypoxia while sparing normal tissue signaling in the skin and gastrointestinal tract, providing a potential therapeutic window.

In November 2015, we reported additional preclinical data on tarloxotinib at the AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics Meeting demonstrating that switching to low-dose tarloxotinib treatment in laboratory models of NSCLC resulted in significant regression of tumors that were progressing despite ongoing treatment with erlotinib, a first-generation EGFR TKI. These tumor models were heterozygous for EGFR whereby both WT (normal) and mutant (abnormal) forms of EGFR were present. Independent research has shown that persistent WT EGFR signaling is associated with TKI resistance, and patients with heterozygous EGFR-mutant NSCLC have worse outcomes following EGFR TKI therapy than those with pure mutant-EGFR disease. We believe our research supports the hypothesis that persistent WT EGFR signaling within the tumor may be an important yet underappreciated mechanism of resistance to TKIs.

Evidence for the role of WT EGFR signaling in TKI resistance was also presented. In a heterozygous model of NSCLC, treatment with osimertinib (AZD9291), a third-generation TKI designed to "spare" WT EGFR, led to tumor regressions. In contrast, in an NSCLC model engineered to have about 40% more WT EGFR, tumors started to regrow after initially responding to osimertinib. Tumor regrowth was brought under control upon switching to tarloxotinib treatment, which resulted in immediate and marked tumor regressions. We believe these preliminary findings suggest that tarloxotinib may be able to overcome WT EGFR-driven resistance to TKI therapy and this may be related to the role of hypoxia in driving WT EGFR signaling within tumors coupled with the hypoxia-activation of tarloxotinib.

Preclinical data were also presented on tarloxotinib in models of SCCHN and SCCS. Across multiple cancer *in vitro* cell lines, tarloxotinib's TKI exhibited greater anti-proliferative activity and consistently silenced EGFR signaling to a greater extent than equimolar concentrations of cetuximab, afatinib or dacomitinib. When tested in *in vivo* models, tarloxotinib was more effective compared to afatinib in controlling SCCS tumor growth, and compared to cetuximab in controlling SCCHN tumor growth. A single dose of tarloxotinib significantly reduced the hypoxic compartment in a SCCHN tumor model.

Clinical development of tarloxotinib

Data from a previous Phase 1 clinical trial of patients with advanced solid tumors were also reported at AACR. The maximum tolerated dose of tarloxotinib administered as a 1-hour weekly intravenous infusion was established at 150 mg/m^2. The most common treatment-related adverse events were dose-dependent and included rash, QT interval prolongation, nausea, infusion reaction, vomiting, diarrhea and fatigue. In August 2015, we announced commencement of two Phase 2 proof-of-concept trials of tarloxotinib: TH-CR-601 and TH-CR-602.

TH-CR-601 is a single-arm, open label studydesigned to enroll up to 37 patients with Stage IV NSCLC who have a sensitizing EGFR mutation and who have progressed on EGFR tyrosine kinase inhibitor therapy (with no intervening therapy), and who subsequently test negative for the T790M mutation on post-progression biopsy. Eligible patients will receive tarloxotinib (150 mg/m2 by intravenous infusion) on Days 1, 8, 15 and 22 of a 28-day cycle. RECIST response rate is the primary endpoint. Secondary endpoints include duration of response, progression-free survival, overall survival, safety, tolerability and pharmacokinetics. In addition to other target-specific biomarkers, hypoxia status will be measured at baseline using Threshold's proprietary PET imaging agent [18F]-HX4. The study will be open at 12 sites in the U.S. and Australia.

TH-CR-602 is a single-arm, open label study designed to enroll up to 68 patients with recurrent or metastatic SCCHN or SCCS. Eligible patients will receive tarloxotinib (150 mg/m2 by intravenous infusion) on Days 1, 8, 15 and 22 of a 28-day cycle. Prior anti-EGFR antibody therapy is permitted. RECIST response rate is the primary endpoint. Secondary endpoints include duration of response, progression-free survival, overall survival, safety, tolerability and pharmacokinetics. In addition to other target-specific biomarkers, hypoxia status will be measured at baseline using Threshold's proprietary PET imaging agent [18F]-HX4. The study is planned to be opened at 10 sites in the U.S. and Australia.

Clinical development activities for tarloxotinib planned in 2016: Enrollment in both Phase 2 trials is ongoing, and no further clinical development is planned. We plan to present preliminary results from both trials at an upcoming medical meeting.

[18F]-HX4 Investigational PET Imaging Agent for Hypoxia

In March 2013, we announced the acquisition of [18F]-HX4 [flortanidazole (18F)] from Siemens Healthcare. [18F]-HX4 is an investigational Positron Emission Tomography (PET) imaging agent for hypoxia developed by Siemens Healthcare Molecular Imaging to potentially identify and quantify the degree of hypoxia in tumors *in vivo*. PET is a non-invasive nuclear medical imaging technique that produces three-dimensional images of certain functional processes in the entire body or selected organs and tissues. [18F]-HX4 contains a short-lived radioisotope, 18F, which can be detected in a PET scanner. PET imaging is used to help physicians diagnose and treat cancer and is routinely performed in cancer treatment centers globally. [18F]-HX4 has a 2-nitroimidazole “trigger” that is designed to be activated under the hypoxic conditions generally found in tumors but not typically in normal healthy tissue, therefore it will accumulate more in these hypoxic regions. Clinical data has demonstrated the potential of [18F]-HX4 to quantify the degree of hypoxia within different tumors. Subject to our ability to obtain additional funding, we initially intend to develop [18F]-HX4 to determine a patient’s tumor hypoxia profile, which may identify patients who will best respond to Threshold’s hypoxia-targeted therapeutics.

Clinical development activities planned for [18F]-HX4 in 2016: [18F]-HX4 is currently being used in both Phase 2 trials of tarloxotinib as described above. No further development is planned at this time.

Market Opportunities

Many different approaches are used in treating cancer, including surgery, radiation and drugs or a combination of these approaches. Drugs used to treat cancer include chemotherapeutics, hormones and immune-based therapies. Traditionally, strategies for designing cancer therapies have focused on killing cancer cells that exhibit rapid division and growth. Such cells are found in regions of the tumor that have an adequate blood supply and therefore receive nutrients and oxygen essential for cell division and growth. However, the vasculature supporting tumors is highly disorganized and irregular. This results in regions of the tumor that do not receive adequate amounts of nutrients and oxygen. Low oxygen concentration within a tumor is called “tumor hypoxia”. Traditional anticancer agents fail to address tumor hypoxia.

Many traditional anticancer agents are not able to penetrate into the hypoxic zones of tumors. Furthermore, cells that reside within regions of tumor hypoxia are relatively quiescent in contrast to highly proliferative cells that are the hallmark of cancer. As many traditional cancer therapies work by blocking cell division, they are not effective in killing the non-dividing, quiescent cells within hypoxic zones. It has also been demonstrated that cells subjected to prolonged hypoxia accumulate changes in their growth properties and genetic mutations that can lead to drug resistance, enhanced metastatic potential, and, ultimately, treatment failure.

Another disadvantage of current cancer therapies that target rapidly dividing cells is their toxic side effects. Because rapidly dividing cells are also found in many healthy tissues, particularly the gastrointestinal tract, bone marrow and hair follicles, nearly all conventional chemotherapy drugs cause severe side effects which may lead to bleeding, infection and anemia, as well as other side effects, such as diarrhea and hair loss. Likewise, radiation generally cannot be administered without causing significant damage to healthy tissue surrounding a tumor.

Given its role in tumor progression, metastasis, resistance, and ultimately treatment failure, hypoxia is emerging as a significant, high-priority target for cancer therapy. As our prodrugs are designed to undergo selective activation under conditions of tumor hypoxia, we anticipate that they should have a favorable safety profile and produce less toxicity to normal tissues at the doses that are effective in treating tumors than is the case with traditional therapies.

We have generated clinical data with evofosfamide alone and administered in combination with multiple anticancer drugs and in multiple cancer types. Drugs that we have tested in combination with evofosfamide include chemotherapies (e.g., doxorubicin, gemcitabine, docetaxel, pemetrexed, bortezomib) and antiangiogenics (e.g., pazopanib, bevacizumab, sorafenib, and sunitinib). The current total market addressed by these drugs exceeds $10 billion. We have tested evofosfamide in numerous indications including pancreatic cancer, glioblastoma, kidney cancer, liver cancer, and gastrointestinal stromal tumors. In the U.S. alone, new cases of these cancers exceed 170,000 per annum.

The table below depicts the latest estimates from the American Cancer Society on expected 2016 incidence and deaths for cancers in the United States that we consider therapeutic areas of interest for evofosfamide.

Type of Cancer	New Cases	Deaths
Kidney and Renal Pelvis	62,700	14,240
Pancreatic cancer	53,070	41,780
Liver (& intrahepatic bile duct)	39,230	27,170
Brain (& other nervous system)	23,770	16,050

The market opportunity for pancreatic cancer is described below.

Pancreatic Cancer

It is estimated that 337,872 cases of pancreatic cancer are diagnosed worldwide every year, accounting for 2.4% of all cancers.Almost 67% of cases are diagnosed in people aged 65 and over; it is uncommon in people under the age of 45. Pancreatic cancer has a low survival rate regardless of stage of disease, with 93% of patients dying from their disease within 5 years. It is estimated that there are 330,372 deaths from pancreatic cancer worldwide each year.

Gemcitabine is the current standard of care for patients with pancreatic cancer and is associated with a median overall survival of approximately 6 months and an overall response rate of approximately 8%. Two other therapeutic agents have been approved for the first-line treatment of patients with pancreatic cancer. Erlotinib is approved for the first line of treatment of patients with pancreatic cancer based on its registrational Phase 3 study in combination with gemcitabine shown to convey a median overall survival of 6.4 months and overall response rate (complete plus partial response rate) of 8.6%. Nab-paclitaxel was approved by the FDA as first–line treatment for patients with metastatic adenocarcinoma of the pancreas, in combination with gemcitabine. Approval was based on an 861-patient Phase 3 clinical trial in chemotherapy-naïve patients with metastatic pancreatic cancer. Nab-paclitaxel plus gemcitabine demonstrated a statistically significant improvement in median overall survival compared to gemcitabine alone (8.5 vs. 6.7 months) (HR 0.72, $p<0.0001$).

Market opportunities for tarloxotinib

Lung cancer is the most common cause of death from cancer worldwide; an estimated 1.8 million new cases were diagnosed in 2012. NSCLC is the most common type of lung cancer, accounting for approximately 85 to 90 percent of cases. EGFR activating mutations occur in approximately 10% of NSCLC cases in Caucasian patients and up to 35% in Asian patients. Tarceva®, Iressa®, and Gilotrif® are the first- and second-generation EGFR inhibitors currently approved for patients with the EGFR activating mutations. Nearly all patients ultimately progress on these therapies due to a variety of resistance mechanisms.

Most head and neck cancers, which include cancers of the larynx (voice box), throat, lips, mouth, nose, and salivary glands, begin in the squamous cells that line the moist surfaces inside the head and neck, and are therefore referred to as squamous cell carcinomas of the head and neck. SCCHN is diagnosed in approximately 59,000 people in the U.S. annually and is responsible for some 12,000 deaths. In the recurrent/metastatic setting, chemotherapy or cetuximab monotherapy is the standard of care with response rates are about ten percent and disease progression occurs within two to three months.

Glufosfamide

From 2004 through 2009 we conducted clinical development of glufosfamide, a drug candidate that shares certain structural characteristics with glucose but acts instead as a chemotherapeutic agent when taken up by a cell. In October 2009, we entered into an exclusive license agreement with Eleison Pharmaceuticals, Inc. or Eleison. Pursuant to the agreement we granted Eleison exclusive worldwide rights to manufacture, develop and commercialize glufosfamide for the treatment of cancer in humans and animals, and certain other uses. Under the agreement, Eleison is responsible for the development, manufacturing and marketing of glufosfamide. Under the agreement, amended in January 2016, Eleison will pay Threshold 30% of the profits of commercialization and certain sales-based milestone payments, if the further clinical development of glufosfamide leads to regulatory approval and marketing. We have no further development plans for glufosfamide.

In October 2013, Eleison announced that it had initiated a pivotal Phase 3 clinical trial of glufosfamide for the second-line treatment of patients with pancreatic cancer. According to their corporate news release, this pivotal trial will enroll patients with relapsed or refractory pancreatic cancer following prior chemotherapy treatment. The randomized, open-label trial is being conducted to evaluate the safety and efficacy of glufosfamide, with a target enrollment of 480 patients. The primary endpoint is overall survival with a number of pre-specified secondary endpoints. The trial will exclude insulin-treated diabetic patients. Eleison has an agreement with the FDA on an SPA for this Phase 3 clinical trial. The trial is expected to be complete enrollment in 2017.

Discovery Research

As part of the workforce reduction enacted in December 2015, we eliminated our discovery research activities conducted in-house but are exploring further evaluation of our oncology compound discovery program with third-parties.

Manufacturing and Supply

We do not have our own manufacturing capability for the active pharmaceutical ingredient, or API, or the final drug product of evofosfamide. Under our Termination Agreement with Merck KGaA, Threshold has exclusive rights to manufacture evofosfamide for clinical and commercial use. To date, however, we have relied on, and we expect to continue to rely on, a limited number of third-party single source contract manufacturers and excipient suppliers for the evofosfamide API and evofosfamide drug product to meet our clinical supply needs of evofosfamide. We have no long-term commitments or commercial supply agreements with any of our evofosfamide suppliers. We will need to enter into additional agreements for additional supplies of each of our product candidates to complete clinical development and/or commercialize them. These products will need to satisfy all cGMP manufacturing requirements, including passing product specifications. Our inability to satisfy these requirements could delay our clinical programs.

We base our estimates for the amount of drug product we will need on assumptions about trial enrollment and trial dose levels. If we are not successful in having sufficient quantities of evofosfamide API and drug product manufactured, or if manufacturing is interrupted at our contract manufacturers for evofosfamide API and evofosfamide drug product due to regulatory or other reasons, or consume more drug product than anticipated because of a higher than expected trial utilization or have quality issues that limit the utilization of the drug product, we may experience a significant delay in our evofosfamide clinical program. In any event, additional agreements for more supplies of each of our product candidates, including evofosfamide, will be needed to complete clinical development and/or commercialize them. In this regard, we may need to enter into agreements for additional supplies of evofosfamide to commercialize it or develop such capability itself. These products will need to satisfy all cGMP manufacturing requirements, including passing product specifications. Our inability to satisfy these requirements could delay our clinical programs. If evofosfamide or tarloxotinib is approved by the FDA or other regulatory agencies for commercial sale, we will need to have it manufactured in commercial quantities. It may not be possible to successfully manufacture commercial quantities of evofosfamide and tarloxotinib or increase the manufacturing capacity for evofosfamide or tarloxotinib in a timely or economically feasible manner.

We also expect to rely on contract manufacturers or other third parties to produce sufficient quantities of clinical trial product for any other product candidates that we may develop. In this regard, while we have obtained certain quantities of tarloxotinib API and drug product from our licensor, we may determine that such API and drug product is not usable or is otherwise insufficient in order for us to complete our Phase 2 proof-of-concept studies of tarloxotinib and we may need to obtain sufficient supplies of tarloxotinib API and drug product from contract manufacturers to complete our Phase 2 proof-of-concept studies, which could delay the completion of the studies, could increase our costs and could negatively impact our tarloxotinib development program. Depending upon the duration of the clinical studies, we might need to develop a new formulation of tarloxotinib. It is possible that we might not be able to develop a formulation with adequate quality that meets the need for testing in our clinical trials. In any event, in order for us to commence any planned or potential future clinical trials of our product candidates, we need to obtain or have manufactured sufficient quantities of clinical trial product and there can be no assurance that we will be able to obtain sufficient quantities of clinical trial product in a timely manner or at all.

Research and Development Expenses

During the years ended December 31, 2015, 2014 and 2013, we spent $40.3 million, $35.8 million and $29.3 million, respectively, on research and development, including product development, discovery research and contract manufacturing activities.

License and Development Agreements

Agreement with Merck KGaA

On February 3, 2012, we entered into a global license and co-development agreement for evofosfamide with Merck KGaA, or the License Agreement. Under the terms of the License Agreement, Merck KGaA received co-development rights, exclusive global commercialization rights and provided us an option to co-commercialize evofosfamide in the United States, and we were entitled to receive an aggregate of up to several million in upfront and milestone payments. To date, we have received upfront and milestone payments of $110 million. Under the License Agreement, Merck KGaA also paid 70% of worldwide development costs for evofosfamide. On March 10, 2016, we and Merck KGaA agreed to terminate the License Agreement pursuant to a termination agreement, or the Termination Agreement. Under the terms of the Termination Agreement, all rights under the License Agreement were returned to Threshold, as well as all rights to Merck KGaA technology developed under the License Agreement. Under the terms of the Termination Agreement, Merck KGaA is entitled to tiered royalties on net sales of evofosfamide, if any, and milestone payments contingent upon the future successful development and commercialization of evofosfamide. To date we have received upfront and milestone payments of $110 million. We previously recorded these as deferred revenue and amortized them over the estimated performance period.

As result of the termination of the License Agreement, we are no longer eligible to receive any further milestone payments or other funding from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA under the License Agreement. Since we are now solely responsible for the further development and commercialization of evofosfamide at our own cost, we areevaluating potential partnering opportunities for evofosfamide, and in this regard, we are currently seeking a pharmaceutical partner for evofosfamide with a commercial presence in oncology in Japan. In any event, our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development.

Threshold will be responsible for the commercialization of evofosfamide. Threshold is evaluating further development and commercialization opportunities for evofosfamide with other partners.

Agreement with Auckland Uniservices Ltd

On September 23, 2014, we entered into an exclusive license agreement with Auckland UniServices Ltd., a wholly-owned company of the University of Auckland. Pursuant to the agreement, we licensed exclusive worldwide rights to a development program based on tarloxotinib from the University of Auckland. We commenced two Phase 2 proof-of-concept trials of tarloxotinib in August 2015 to evaluate the efficacy, safety and tolerability of tarloxotinib administered as a single agent to patients with advanced non-squamous non-small cell lung cancer and patients with squamous cell carcinomas of the head and neck or skin. Under the terms of this agreement, we made no upfront payment but we are required to pay all costs of development, as well as annual license maintenance fees starting in 2017, and assuming that we determine to advance the clinical development of tarloxotinib beyond our ongoing Phase 2 proof-of-concept studies, we would be required to pay development, regulatory and sales-based milestone payments and royalties on net sales of products, including tarloxotinib, incorporating technology licensed from Auckland Uniservices Ltd.

Agreement with Eleison Pharmaceuticals, Inc.

On January 8, 2016, we amended the exclusive license agreement with Eleison. Pursuant to the original agreement effective on October, 18, 2009, we granted Eleison exclusive worldwide rights to manufacture, develop and commercialize glufosfamide for the treatment of cancer in humans and animals, and certain other uses. Under the agreement, Eleison is responsible for the development, manufacturing and marketing of glufosfamide.

Under the amendment, Eleison will pay us 30% of its profits from commercialization on a quarterly basis, beginning on the date of first commercial sale, if any. Eleison has the right to sublicense some or all of its rights under the agreement, and will pay us 30% of amounts received under any sublicenses, including, without limitation, any royalty payments, license fee payments, milestone payments and payments for any equity or debt purchases by a sublicensee, within 30 days of the receipt of any such amounts or payments by Eleison. In addition, Eleison is now required to pay us up to $175 million in potential sales-based milestone payments. Eleison will bear all costs associated with development, commercialization and patent prosecution, and will control product development and commercialization. In addition, Eleison will be responsible for all royalty and milestone payments due under certain agreements pursuant to which we licensed rights related to glufosfamide. The agreement contemplates that Eleison, to satisfy its diligence obligations, will raise sufficient funds to continue clinical development activities with glufosfamide. In the event that Eleison fails to satisfy its diligence obligations, we may, at our option, terminate the agreement for material breach or convert the license granted under the agreement to a non-exclusive license.

The agreement will remain in effect as long as Eleison continues to sell glufosfamide anywhere in the world or receives payments under any sublicenses. Each party is entitled to terminate the agreement upon the other party's material breach after expiration of a 60-day cure period (30 days in the event of a payment breach). Each party is entitled to terminate the agreement immediately upon the bankruptcy or similar petition of the other party that is not discharged within 60 days, or the assignment for the benefit of creditors by, or the appointment of a receiver over the property of, the other party. In addition, Eleison may terminate the agreement for convenience at any time on 90 days written notice to us.

Following any termination by Eleison for convenience or by us for Eleison's material breach, all licensed rights will revert to us. Following any termination by Eleison for our material breach, all licensed rights will fully vest in Eleison, provided that Eleison will be required to pay us 30% of the profit sharing payments it otherwise would have been required to pay us under the agreement.

Patents and Proprietary Rights

Our policy is to patent the technologies, inventions and improvements that we consider important to the development of our business. As of March 10, 2016, we owned 113 U.S. and foreign patents and patent applications relating to evofosfamide and its manufacture, formulation and use. These include 7 issued U.S. patents expiring from 2024 to 2031 and 32 issued foreign patents expiring from 2024 to 2027 (in each case, without including any regulatory-delay based patent term extension), as well as 9 pending U.S., 4 pending Patent Cooperation Treaty and 55 pending foreign national patent applications, which, if issued, would in each case expire from 2024 to 2038 (without including any regulatory- or patent office-delay based patent term extension).

As of March 10, 2016, we have rights to 43 U.S. and foreign patents and patent applications relating to tarloxotinib and its manufacture, formulation and use, each of which are exclusively licensed by us from Auckland Uniservices Ltd. These include 6 issued foreign and 2 issued U.S. patents expiring in 2030, as well as 4 pending U.S., and 33 pending foreign national patent applications, which, if issued, would in each case expire from 2030 to 2036 (without including any regulatory- or patent office-delay based patent term extension).

Although we have U.S. and foreign issued patents that cover certain hypoxia-targeted prodrugs, including evofosfamide and tarloxotinib, we have no issued patents or pending patent applications that would prevent others from taking advantage of hypoxia-targeted prodrug technology generally to discover and develop new therapies for cancer or other diseases. Consequently, our competitors may seek to discover and develop potential therapeutics that operate by mechanisms of action that are the same or similar to the mechanisms of action of our hypoxia-targeted prodrug product candidates.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. Our ability to maintain and solidify our proprietary position for our technology will depend on our success in obtaining effective claims and enforcing those claims once granted. We do not know whether any of our pending patent applications will result in the issuance of any patents. Moreover, an issued patent does not guarantee us the right to practice the patented technology or commercialize the patented product. Other parties may have blocking patents that could be used to prevent us from commercializing our patented products and practicing our patented technology. Our issued patents and those that may be issued in the future may be challenged, invalidated, or circumvented, which could limit our ability or render us unable to stop competitors from marketing related products as well as shorten the term of patent protection that we may have for our products. In addition, the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop similar technologies that do not infringe our intellectual property rights. For these reasons, we may have competition for our products. Moreover, because of the extensive time required for development, testing and regulatory review of a potential therapeutic product, it is possible that, before any of our products can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent. If we are not able to obtain adequate protection for, or defend, the intellectual property position of evofosfamide, tarloxotinib or any other potential future product candidates, then we may not be able to retain or attract collaborators to partner our development programs. Further, even if we can obtain protection for and defend the intellectual property position of evofosfamide, tarloxotinib or any potential future product candidates, we or any of our potential future collaborators still may not be able to exclude competitors from developing or marketing competing drugs. Should this occur, we and potential future collaborators may not generate any revenues or profits from evofosfamide, tarloxotinib or any potential future product candidates or our revenue or profit potential would be significantly diminished.

We also rely on trade secrets, technical know-how and continuing innovation to develop and maintain our competitive position. We seek to protect our proprietary information by requiring our employees and certain of our consultants, contractors, outside scientific collaborators and other advisors to execute non-disclosure and assignment of invention agreements on commencement of their employment or engagement. Agreements with our employees also forbid them from using third party trade secret or other confidential information in their work. We also require confidentiality or material transfer agreements from third parties that receive our confidential data or proprietary materials.

The biotechnology and pharmaceutical industries are characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. For so long as our product candidates are in clinical trials, we believe our clinical activities fall within the scope of the exemptions provided by 35 U.S.C. Section 271(e) in the United States, which exempts from patent infringement liability activities reasonably related to the development and submission of information to the FDA. This exemption does not apply to commercialization activities; however, if our product candidates are commercialized, then the possibility of a patent infringement claim against us increases. While we attempt to ensure that our clinical product candidates and the methods we employ to manufacture them, as well as the methods for their use we intend to promote, do not infringe other parties' patents and other proprietary rights, there can be no assurance that they do not, and competitors or other parties may assert that we infringe their proprietary rights in any event.

Competition

We operate in the highly competitive segment of the pharmaceutical market comprised of pharmaceutical and biotechnology companies that research, develop and commercialize products designed to treat cancer. Many of our competitors have significantly greater financial, manufacturing, marketing, research and product development resources than we do. Large pharmaceutical companies in particular have extensive experience in clinical testing and in obtaining regulatory approval for drugs. These companies also have significantly greater research capabilities than we do. In addition, many universities and private and public research institutes are active in cancer research, some in direct competition with us. We also compete with these organizations to recruit scientists and clinical development personnel.

Each cancer indication for which we are or may be developing products has a number of established medical therapies with which our candidates will compete. Most major pharmaceutical companies and many biotechnology companies are aggressively pursuing cancer development programs, including traditional therapies and therapies with novel mechanisms of action. Our evofosfamide and tarloxotinib product candidates for targeting the tumor hypoxia are likely to be in highly competitive markets and may eventually compete with other therapies offered by companies who are developing or were developing drugs that target tumor hypoxia. Our competitors may succeed in developing their products before we do, obtaining approvals from the FDA or other regulatory agencies for their products more rapidly than we do, or developing products that are more effective than evofosfamide. These products or technologies might render our technology obsolete or noncompetitive. There may also be product candidates of which we are not aware at an earlier stage of development that may compete with evofosfamide.

Our cancer product candidates face competition from established biotechnology and pharmaceutical companies and from generic pharmaceutical manufacturers. In particular, if approved for commercial sale for pancreatic cancer, evofosfamide would compete with Gemzar®, marketed by Eli Lilly and Company; Tarceva®, marketed by Roche/Genentech and Astellas Oncology; Abraxane® marketed by Celgene; and FOLFIRINOX, which is a combination of generic products that are sold individually by many manufacturers. If approved for commercial sale for treatment-resistant non-small cell lung cancer, tarloxotinibcould potentially compete with other EGFR-TKIs currently in late-stage clinical development including AstraZeneca's AZD-9291, Clovis Oncology's CO-1686, and Pfizer's dacomitinib. If approved for commercial sale for recurrent/metastatic head and neck cancer, tarloxotinib could potentially compete with Bristol Myers Squibb's Erbitux®, an approved agent, or other agents currently in late-stage clinical development including an EGFR TKI, Boehringer Ingelheim's afatinib and Bristol Myers Squibb's nivolumab and Merck's pembrolizumab, both PD-1 inhibitors.

Governmental Regulation and Product Approval

The manufacturing and marketing of our potential products and our ongoing research and development activities are subject to extensive regulation by the FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries.

United States Regulation

Before any of our products can be marketed in the United States, they must secure approval by the FDA. To secure this approval, any drug we develop must undergo rigorous preclinical testing and clinical trials that demonstrate the product candidate's safety and effectiveness for each chosen indication for use. This extensive regulatory process controls, among other things, the development, testing, manufacture, safety, efficacy, record keeping, labeling, storage, approval, import, export, advertising, promotion, sale, and distribution of biopharmaceutical products.

In general, the process required by the FDA before investigational drugs may be marketed in the United States involves the following steps:

- pre-clinical laboratory and animal tests;
- submission of an investigation new drug application or IND, which must become effective before human clinical trials may begin;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use;
- pre-approval inspection of manufacturing facilities and selected clinical investigators; and
- FDA approval of a new drug application or NDA, or of an NDA supplement (for subsequent indications).

Preclinical Testing

In the United States, drug candidates are tested in animals until adequate proof of safety is established. These preclinical studies generally evaluate the mechanism of action of the product, expose and assess the potential safety and efficacy of the product. Tested compounds must be produced according to applicable current good manufacturing practice, or cGMP, requirements and preclinical safety tests must be conducted in compliance with FDA and international regulations regarding good laboratory practices, or GLP. The results of the preclinical tests, together with manufacturing information and analytical data, are generally submitted to the FDA as part of an IND, which must be become effective before human clinical trials may commence. The IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA requests an extension or raises concerns about the conduct of the clinical trials as outlined in the application. If the FDA has any concerns, the sponsor of the application and the FDA must resolve the concerns before the hold is lifted and before clinical trials can begin. Submission of an IND may not result in FDA authorization to commence a clinical trial. A separate submission to the existing IND must be made for each successive clinical trial conducted during product development. Investigator Sponsored Trials are INDs held by investigators that utilize investigational drugs supplied by a pharmaceutical manufacturer. Data generated under Investigator Sponsored Trials may not be as robust as commercially sponsored IND trials. Regulatory authorities may require additional data before allowing the clinical trials to commence or proceed from one Phase to another, and could demand that the trials be discontinued or suspended at any time if there are significant safety issues. Furthermore, an independent institutional review board, or IRB, for each medical center proposing to participate in the conduct of the clinical trial must review and approve the clinical protocol and patient informed consent before the center commences the clinical trial. [18F]-HX4 [flortanidazole (18F)] will require submission of a separate IND.

Clinical Trials

Clinical trials for new drug candidates are typically conducted in three sequential phases, under Good Clinical Practices, that may overlap. Phase 1 clinical trials involve the initial introduction of the drug candidate into humans and are conducted in volunteers or in patients with a specific disease depending on the intended use of the drug and its potential safety profile. The emphasis in Phase 1 is on testing for safety (adverse effects), dosage, tolerance, absorption, metabolism, distribution, excretion, and preliminary clinical pharmacology. Phase 2 clinical trials involve a limited patient population to determine the initial efficacy of the drug candidate for specific targeted indications, to determine dosage tolerance and optimal dosage and to identify possible adverse side effects and safety risks. When a compound shows evidence of effectiveness along with an acceptable safety profile in Phase 2 clinical trials the drug is moved to Phase 3 development. Phase 3 clinical trials are undertaken to more fully evaluate the safety and efficacy and to establish the overall risk/benefit profile of the drug. These Phase 3 clinical trials are the basis for determining if the drug should be approved for commercialization. During all clinical trials, physicians monitor patients to determine effectiveness of the drug candidate and observe and report any adverse effects or safety risks that may result from use of the drug candidate. The FDA, the IRB, or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk or that the drug is not sufficiently efficacious to continue further studies.

The data from the clinical trials, together with preclinical data and other supporting information that establishes a drug candidate's safety profile and efficacy, are submitted to the FDA in the form of an NDA or NDA supplement (for approval of a new indication if the product candidate is already approved for another indication). The cost of preparing and submitting a NDA is substantial. Under federal law, the submission of most NDAs is additionally subject to a substantial application user fee, and the manufacturer and/or sponsor under an approved NDA are also subject to annual product and establishment user fees. Under applicable laws and FDA regulations, each NDA submitted for FDA assessment is reviewed for filing within 60 days following submission of the NDA. If deemed acceptable, the FDA will "file" the NDA, thereby initiating the review clock triggering substantive review of the application. The FDA can refuse to file any NDA that it deems incomplete or not properly reviewable. The FDA has established internal goals of reviewing and acting on NDAs within six months of filing for priority NDAs (for drugs addressing serious or life threatening conditions for which there is an unmet medical need) and ten months of filing for standard NDAs. Priority review is assigned by the FDA to drugs that it determines offer major advances in treatment, or provide a treatment where no adequate therapy exists. The FDA, however, is not legally required to complete its review within these periods, and these performance goals may change over time. Following a complete review of the application the FDA will either issue an approval or a complete response letter outlining the deficiencies in the submission, which may require substantial additional testing or information for the FDA to reconsider the application. The FDA's review of an NDA may involve review and recommendations by an independent FDA advisory committee. The FDA may deny approval of an NDA or NDA supplement if the applicable regulatory criteria are not satisfied, or it may require additional clinical data and/or an additional pivotal Phase 3 clinical trial. Risk Evaluation and Mitigation Strategies, or REMS, may be required for approval of an NDA. Even if such data or REMS are submitted, the FDA may ultimately decide that the NDA or NDA supplement does not satisfy the criteria for approval.

Data Review and Approval

Satisfaction of FDA requirements or similar requirements of state, local and foreign regulatory agencies typically takes several years and requires the expenditure of substantial financial resources. Information generated in this process is susceptible to varying interpretations that could delay, limit, or prevent regulatory approval at any stage of the process. Accordingly, the actual time and expense required to bring a product to market may vary substantially. We cannot be certain that we will submit applications for required authorizations to manufacture and/or market potential products or that any such application will be reviewed and approved by the appropriate regulatory authorities in a timely manner, if at all. Data obtained from clinical activities is not always conclusive and may be susceptible to varying interpretations that could delay, limit, or prevent regulatory approval. Success in early stage clinical trials does not ensure success in later stage clinical trials. Even if a product candidate receives regulatory approval, the approval may be significantly limited to specific disease states, patient populations, and dosages, or have conditions placed on them that restrict the commercial applications, advertising, promotion, or distribution of these products.

Once issued, the FDA may withdraw product approval if ongoing regulatory standards are not met or if safety problems occur after the product reaches the market. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs. The FDA may also request additional clinical trials after a product is approved. These so-called postmarketing, or Phase 4 studies, may be made a condition to be satisfied after a drug receives approval. The results of postmarketing studies can confirm the effectiveness of a product candidate and can provide important safety information to augment the FDA's voluntary adverse drug reaction reporting system. The product may be subject to withdrawal of the approval if effectiveness is not confirmed in the Phase 4 studies. Any products manufactured or distributed by us pursuant to FDA approvals would be subject to continuing regulation by the FDA, including record-keeping requirements and reporting of adverse experiences with the drug. Drug manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with good manufacturing practices, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. We cannot be certain that we or our present or future suppliers will be able to comply with the cGMP regulations and other FDA regulatory requirements. If our present or future suppliers are not able to comply with these requirements, the FDA may halt our clinical trials, require us to recall a drug from distribution, or withdraw approval of the NDA for that drug. Furthermore, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market.

The FDA closely regulates the marketing and promotion of drugs. Approval may be subject to post-marketing surveillance and other record keeping and reporting obligations, and involve ongoing requirements. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. A company can make only those claims relating to safety and efficacy that are approved by the FDA and is specifically included in drug labeling. While physicians may prescribe legally available drugs for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA, manufacturers may only promote for the approved indications and in accordance with the provisions of the approved label. Failure to comply with FDA requirements can result in adverse publicity, warning letters, corrective advertising, and potential civil and criminal penalties.

Special Protocol Assessments

A clinical trial sponsor may submit a request for an SPA from the FDA. Under the SPA procedure, a sponsor may seek the FDA's agreement on the design and size of a clinical trial intended to form the primary basis of an effectiveness claim. If the FDA agrees in writing, its agreement may not be changed after the trial begins, except in limited circumstances, such as when a substantial scientific issue essential to determining the safety and effectiveness of a product candidate is identified after a Phase 3 clinical trial is commenced and agreement is obtained with the FDA. If the outcome of the trial is successful, the sponsor will ordinarily be able to rely on it as the primary basis for approval with respect to effectiveness. The FDA, however, may make an approval decision based on a number of factors, including the degree of clinical benefit, and the FDA is not obligated to approve an NDA as a result of an SPA, even if the clinical outcome is positive.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process. If a product that has orphan drug designation subsequently receives FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same disease, except in limited circumstances, for seven years. These circumstances are an inability to supply the drug in sufficient quantities or a situation in which a new formulation of the drug has shown superior safety or efficacy or a major contribution to patient care. This exclusivity, however, also could block the approval of our product for seven years if a competitor obtains earlier approval of the same drug for the same indication.

Other Health Care Laws

In addition to FDA restrictions, other federal and state laws restrict our business practices. In the United States, we are subject to various federal and state laws pertaining to healthcare, including, without limitation, "fraud and abuse" laws such as anti-kickback and false claims laws, data privacy and security laws, and payment transparency laws.

The federal Anti-Kickback Law makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf) to, among other things, knowingly and willfully solicit, offer, receive or pay any remuneration, directly or indirectly, in exchange for, or to induce, the referral of business, including the purchase, order or prescription of a particular drug, for which payment may be made under federal healthcare programs such as Medicare and Medicaid. Violations of the law are punishable by up to five years in prison, criminal fines, administrative penalties, civil money penalties, and exclusion from participation in federal healthcare programs. Due to the breadth of these laws, and the potential for additional legal or regulatory change addressing some of our practices, it is possible that our practices or our relationships with physicians might be challenged under anti-kickback laws, which could harm us.

Civil and Criminal false claims laws and civil monetary penalties laws prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, for payment to third-party payors (including Medicare and Medicaid) claims for reimbursed items or services, including drugs, that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services. Our future activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of Medicaid rebate information and other information affecting federal, state and third-party reimbursement of our products, and the sale and marketing of our products, are subject to scrutiny under these laws. In addition, pharmaceutical companies have been prosecuted under the federal civil False Claims Act in connection with their off-label promotion of drugs. Penalties for a violation of the civil False Claims Act, some of which may be broader in scope, include three times the actual damages sustained by the government, plus mandatory civil penalties of between $5,500 and $11,000 for each separate false claim. In addition, certain states have enacted laws modeled after the federal civil False Claims Act. If the government were to allege that we were, or convict us of, violating these false claims laws, we could be subject to substantial penalties, including, for example, potentially significant fines which may cause a decline in our stock price.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information

Additionally, the federal Physician Payments Sunshine Act, created under the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, collectively the ACA, and its implementing regulations, require certain manufacturers of drugs, devices, biological products and medical supplies to report annually information related to certain payments or other transfers of value provided to physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

In addition, many states have adopted laws similar to the aforementioned laws. Some of these state prohibitions may be broader in scope and may apply to referral of patients for healthcare services reimbursed by any source, not only the Medicare and Medicaid programs. Additionally, our business operations in foreign countries and jurisdictions may subject us to additional regulation.

If our operations are found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal and civil and/or administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Drug Price Competition and Patent Term Restoration Act of 1984

Under the Drug Price Competition and Patent Term Restoration Act of 1984, known as the Hatch-Waxman Amendments, a portion of a product's patent term that was lost during clinical development and application review by the FDA may be restored. The Hatch-Waxman Amendments also provide for a statutory protection, known as nonpatent market exclusivity, against the FDA's acceptance or approval of certain competitor applications. The Hatch-Waxman Amendments also provide the legal basis for the approval of abbreviated new drug applications, or ANDAs, for generic drugs.

Patent term restoration can compensate for patent life lost during product development and the regulatory review process by returning up to five years of patent life for a patent that covers a new product or its use. This period is generally one-half the time between the effective date of an IND (falling after issuance of the patent) and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application. Patent term restorations, however, are subject to a maximum extension of five years, and the patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years. The application for patent term extension is subject to approval by the United States Patent and Trademark Office in conjunction with the FDA. It takes at least six months to obtain approval of the application for patent term extension. Up to five years of interim one year extensions are available if a product is still undergoing development or FDA review at the time of its expiration.

The Hatch-Waxman Amendments also provide for a period of statutory protection for new drugs that receive NDA approval from the FDA. If a new drug receives NDA approval as a new chemical entity, meaning that the FDA has not previously approved any other new drug containing the same active moiety, then the Hatch-Waxman Amendments prohibit an abbreviated new drug application or an NDA where the applicant does not own or have a legal right of reference to all of the data required for approval, or a "505(b)(2)" NDA, to be submitted by another company for a generic version of such drug, with some exceptions, for a period of five years from the date of approval of the NDA. The statutory protection provided pursuant to the Hatch-Waxman Amendments will not prevent the filing or approval of a full NDA. In order to gain approval of a full NDA, however, a competitor would be required to conduct its own preclinical investigations and clinical trials. If NDA approval is received for a new drug containing an active ingredient that was previously approved by the FDA but the NDA is for a drug that includes an innovation over the previously approved drug, for example, an NDA approval for a new indication or formulation of the drug with the same active ingredient, and if such NDA approval was dependent upon the submission to the FDA of new clinical investigations, other than bioavailability studies, conducted or paid for by the sponsor, then the Hatch-Waxman Amendments prohibit the FDA from making effective the approval of an ANDA or a 505(b)(2) NDA for a generic version of such drug for a period of three years from the date of the NDA approval. This three year exclusivity, however, only covers the innovation associated with the NDA to which it attaches. Thus, the three year exclusivity does not prohibit the FDA, with limited exceptions, from approving ANDAs or 505(b)(2) NDAs for drugs containing the same active ingredient but without the new innovation.

While the Hatch-Waxman Amendments provide certain patent term restoration and exclusivity protections to innovator drug manufacturers, it also permits the FDA to approve ANDAs for generic versions of their drugs. The ANDA process permits competitor companies to obtain marketing approval for a drug with the same active ingredient for the same uses but does not require the conduct and submission of clinical trials demonstrating safety and effectiveness for that product. Instead of safety and effectiveness data, an ANDA applicant needs only to submit data demonstrating that its product is bioequivalent to the innovator product as well as relevant chemistry, manufacturing and control data. The Hatch-Waxman Amendments also instituted a third type of drug application that requires the same information as an NDA including full reports of clinical and preclinical studies except that some of the information from the reports required for marketing approval comes from studies which the applicant does not own or have a legal right of reference. This type of application, a "505(b)(2) NDA," permits a manufacturer to obtain marketing approval for a drug without needing to conduct or obtain a right of reference for all of the required studies.

Finally, the Hatch-Waxman Amendments require, in some circumstances, an ANDA or a 505(b)(2) NDA applicant to notify the patent owner and the holder of the approved NDA of the factual and legal basis of the applicant's opinion that the patent listed by the holder of the approved NDA in FDA's Orange Book is not valid or will not be infringed (the patent certification process). Upon receipt of this notice, the patent owner and the NDA holder have 45 days to bring a patent infringement suit in federal district court and obtain a 30-month stay against the company seeking to reference the NDA. The NDA holder could still file a patent suit after the 45 days, but if they did, they would not have the benefit of the 30-month stay. Alternatively, after this 45-day period, the applicant may file a declaratory judgment action, seeking a determination that the patent is invalid or will not be infringed. Depending on the circumstances, however, the applicant may not be able to demonstrate a controversy sufficient to confer jurisdiction on the court. The discovery, trial and appeals process in such suits can take several years. If such a suit is commenced, the Hatch-Waxman Act provides a 30-month stay on the approval of the competitor's ANDA or 505(b)(2) NDA. If the litigation is resolved in favor of the competitor or the challenged patent expires during the 30-month period, unless otherwise extended by court order, the stay is lifted and the FDA may approve the application. Under the Modernization Act, the patent owner and the NDA holder have the opportunity to trigger only a single 30-month stay per ANDA or 505(b)(2) NDA.

Foreign Approvals

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Under European Union regulatory systems, we may submit marketing authorizations either under a centralized or decentralized procedure. The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for mutual recognition of national approval decisions. Under this procedure, the holder of a national marketing authorization may submit an application to the remaining member states. Within 90 days of receiving the applications and assessment report, each member state must decide whether to recognize approval.

Under the Japanese regulatory system administered by the Pharmaceuticals and Medical Devices Agency (PMDA), pre-marketing approval and clinical studies are required for all pharmaceutical products. To obtain manufacturing/ marketing approval, we must submit an application for approval to the MHLW with results of nonclinical and clinical studies to show the quality, efficacy and safety of a new drug. A data compliance review, GCP on-site inspection, cGMP audit and detailed data review are undertaken by the PMDA. The application is then discussed by the committees of the Pharmaceutical Affairs and Food Sanitation Council (PAFSC). Based on the results of these reviews, the final decision on approval is made by Ministry of Health, Labour and Welfare (MHLW). In Japan, the National Health Insurance system maintains a Drug Price List specifying which pharmaceutical products are eligible for reimbursement, and the MHLW sets the prices of the products on this list. After the approval, negotiations regarding the reimbursement price with MHLW will begin. The price will be determined within 60 to 90 days unless the applicant disagrees, which may result in extended pricing negotiations. The government generally introduces price cut rounds every other year and also mandates price decreases for specific products. New products judged innovative or useful, that are indicated for pediatric use, or that target orphan or small population diseases, however, may be eligible for a pricing premium. The government has also promoted the use of generics, where available.

The policies of the FDA and foreign regulatory authorities may change and additional government regulations may be enacted which could prevent or delay regulatory approval of our investigational drugs or approval of new diseases for our existing products. We cannot predict the likelihood, nature or extent of adverse governmental regulation that might arise from future legislative or administrative action, either in the United States or abroad.

Other Government Regulation

Our research and development activities use biological and hazardous materials that are dangerous to human health and safety or the environment. We are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials and wastes resulting from these materials. We are also subject to regulation by the Occupational Safety and Health Administration, or OSHA, the California and federal environmental protection agencies and to regulation under the Toxic Substances Control Act. OSHA or the California or federal EPA may adopt regulations that may affect our research and development programs. We are unable to predict whether any agency will adopt any regulations that could have a material adverse effect on our operations. We have incurred, and will continue to incur, capital and operating expenditures and other costs in the ordinary course of our business in complying with these laws and regulations.

Revenues and Information About Geographic Areas

All of our revenues for the years ended December 31, 2015, 2014, 2013 resulted from the amortization of upfront and milestone payments received under our former collaboration with Merck KGaA. Further information on our collaboration with Merck KGaA is included in Note 3 to our consolidated financial statements. All of our long-lived assets are maintained in the United States.

Employees

As of December 31, 2015, we had 26 employees, including 6 who hold Ph.D. and/or M.D. degrees. 16 of our employees are engaged in research and development, and our remaining employees are management or administrative staff. None of our employees is subject to a collective bargaining agreement. We believe that we have good relations with our employees.

Our Corporate Information

We were incorporated in Delaware on October 17, 2001. Our principal executive offices are located at 170 Harbor Way Suite 300, South San Francisco 94080. Our telephone number is (650) 474-8200.

Available Information

We file electronically with the Securities and Exchange Commission, or SEC, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) or 15(d) of the Exchange Act. The SEC maintains an Internet site that contains reports, proxy information and information statements, and other information regarding issuers that file electronically with the SEC. The address of that website is http://www.sec.gov. The materials are also available at the SEC's Public Reference Room, located at 100 F Street, Washington, D.C. 20549. The public may obtain information through the public reference room by calling the SEC at 1-800-SEC-0330.

You may obtain a free copy of our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports on the day of filing with the SEC on our website at http://www.thresholdpharm.com or by contacting the Investor Relations Department at our corporate offices by calling (650) 474-8200. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this annual report on Form 10-K.

ITEM 1A. RISK FACTORS

We have identified the following risks and uncertainties that may have a material adverse effect on our business, financial condition or results of operations. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should refer to the other information contained in this annual report on Form 10-K, including our consolidated financial statements and related notes.

Risks Related to Drug Discovery, Development and Commercialization

We remain substantially dependent upon the success of evofosfamide. If we are unable to successfully develop and obtain regulatory approval for evofosfamide, our business and future prospects will be severely harmed.

We have focused our development activities on evofosfamide, and substantially all of our efforts and expenditures continue to be devoted to evofosfamide. Accordingly, our future prospects are substantially dependent on the successful development, regulatory approval and commercialization of evofosfamide. In this regard, a substantial portion of our efforts have been devoted to two pivotal Phase 3 clinical trials of evofosfamide: the "406 trial" evaluating evofosfamide in combination with doxorubicin versus doxorubicin alone in patients with soft tissue sarcoma, and the MAESTRO trial of evofosfamide in combination with gemcitabine in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma, conducted by Merck KGaA. The 406 trial and the MAESTRO trial failed to meet their primary endpoints of demonstrating a statistically significant improvement in overall survival as agreed upon with the FDA, based on our analyses for the 406 trial and Merck KGaA's analyses for the MAESTRO trial. This has significantly depressed our stock price and harmed our future prospects. We are conducting additional analyses of the data from MAESTRO trial and intend to review and discuss the results of our analyseswith health regulatory authorities, to determine potential registration pathways. Evofosfamide and the activities associated with its development and commercialization, including testing, manufacture, safety, efficacy, recordkeeping, labeling, and storage, are subject to approval and continuing regulation by the FDA, PMDA and other regulatory agencies in and outside the U.S. Failure to obtain regulatory approval for a product candidate will prevent us from commercializing evofosfamide. Different regulatory agencies may reach different decisions in assessing the approval evofosfamide. Securing regulatory approval requires the submission of extensive preclinical and clinical data, information about product manufacturing processes and inspection of facilities and supporting information to the regulatory agencies for each therapeutic indication to establish the product candidate's safety and efficacy. Historically, Japan has required that pivotal clinical data submitted in support of a new drug application be performed on a significant population of Japanese patients. The PMDA may accept U.S. or E.U. patient data when submitted along with a bridging study, but only if it demonstrates that Japanese and non-Japanese subjects react comparably to the product. 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. Changes in the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. The FDA, PMDA and other foreign regulatory agencies have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Based on the data from the MAESTRO trial, the FDA, PMDA or other health regulatory authorities may determine that the data from the MAESTRO trial are insufficient to support the approval of any marketing authorization and that one or more additional clinical trials of evofosfamide would be required to be successfully conducted by us in order to support any such approval, including with respect to any patient subgroups that we may identify that we believe may potentially benefit from treatment with evofosfamide and gemcitabine. If we are required to successfully conduct and complete any additional clinical trials of evofosfamide in order to support potential approval ofevofosfamide, we would be required to obtain additional capital and there can be no assurances that we would be successful in obtaining the additional funding, whether through new partnering or collaboration arrangements or otherwise, necessary to support any additional clinical development of evofosfamide. Any regulatory approval we ultimately obtain may be limited in scope or subject to restrictions or post-approval commitments that render the product not commercially viable. If any regulatory approval that we obtain is delayed or is limited, we may decide not to commercialize the product candidate after receiving the approval. In addition, in March 2016, we and Merck KGaA agreed to terminate our collaboration and, as a result, we will not any receive any clinical development milestones or any other funding from Merck KGaA for the purpose of conducting any further clinical development of evofosfamide. Under our former collaboration with Merck KGaA, Merck KGaA was responsible for 70% of the worldwide development expenses for evofosfamide. If we are unable to obtain sufficient additional finding for the further development of evofosfamide, whether through new partnering or collaborative arrangements or otherwise, we may be required to cease further development of our evofosfamide program. Also, issues with the successful and timely transfer of evofosfamide development activities from Merck KGaA could significantly impact our ability to analyze the MAESTRO data for the purposes of pursuing discussions with regulatory authorities and potential partners, and there can be no assurance that such development activities will be successfully transferred to us in a timely manner or at all. For these and other reasons, we cannot assure you that we will be able to advance the development of evofosfamide. In such event, we may be required to abandon the development ofevofosfamide and forego any return on our investment from ourevofosfamide program, which would severely harm our future prospects and may cause us to cease operations.

Even if we are able to advance the development of evofosfamide, the failure of evofosfamide in the future to achieve successful clinical trial endpoints, delays in clinical trial enrollment or events or in the clinical development of evofosfamide, unanticipated adverse side effects related to evofosfamide or any other unfavorable developments or information related to evofosfamide would further significantly harm our business and our future prospects. For example, in January 2016, we announced that an IDSMB concluded that our registrational Phase 2 clinical trial of evofosfamide plus pemetrexed versus pemetrexed alone in patients with non-squamous non-small cell lung cancer was unlikely to reach its primary endpoint of improving overall survival with statistical significance and, as a result, enrollment in this trial was closed and in connection therewith, we determined to cease enrollment in all Threshold-sponsored trials of evofosfamide. In addition, the FDA and other regulatory authorities have substantial discretion in the approval process and may refuse to approve any application we may submit or decide that clinical trial data for evofosfamide are insufficient for approval. Varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of evofosfamide. Moreover, evofosfamide is not expected to be commercially available in the near term, if at all. Further, the commercial success of evofosfamide, if any, will depend upon its acceptance by physicians, patients, third party payors and other key decision-makers as a therapeutic and cost effective alternative to currently available products. In any event, if we are unable to successfully develop, obtain regulatory approval for and commercialize evofosfamide, our ability to generate revenue from product sales will be significantly delayed or precluded altogether and our business would be materially and adversely affected, and we may not be able to continue as a going concern.

If we do not establish collaborations for our product candidates or otherwise raise substantial additional capital, we will likely need to alter, delay or abandon our development and any commercialization plans.

Our strategy includes selectively partnering or collaborating with leading pharmaceutical and biotechnology companies to assist us in furthering the development and potential commercialization of our product candidates. In this regard, as result of the termination of our collaboration with Merck KGaA, we are no longer eligible to receive any further milestone payments or other funding from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA. Since we are now solely responsible for the further development and commercialization ofevofosfamide at our own cost, we areevaluating potential partnering opportunities for evofosfamide, and in this regard, we are currently seeking a pharmaceutical partner for evofosfamide with a commercial presence in oncology in Japan. In this regard, our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development. We face significant competition in seeking appropriate collaborators, and collaborations are complex and time consuming to negotiate and document. We may not be successful in entering into new collaborations with third parties on acceptable terms, or at all. In addition, we are unable to predict when, if ever, we will enter into any additional collaborative arrangements because of the numerous risks and uncertainties associated with establishing such arrangements. If we are unable to negotiate new collaborations, we may have to curtail the development of a particular product candidate, reduce, delay, or terminate its development or one or more of our other development programs, delay its potential commercialization or reduce the scope of our sales or marketing activities or increase our expenditures and undertake development or commercialization activities at our own expense. For example, we may have to cease further development of our evofosfamide program if we are unable to raise sufficient funding for any additional clinical development of evofosfamide through new partnering or collaborative arrangements with third parties or other financing alternatives. In this regard, if we decide to undertake any further development of our product candidates beyond our ongoing clinical trials and preclinical development, we would need to obtain additional funding for such development, either through financing or by entering into collaborative arrangements or partnerships with third parties for any such further development and we may be unable to do. In addition, we may not be able to dedicate further resources to tarloxotinib after the conclusion of our ongoing Phase 2 proof-of-concept clinical trials of tarloxotinib and while we are currently determining third party interest in partnering or acquiring this asset and other preclinical oncology compounds, we may be unable to partner or divest these assets in a timely manner, or at all, and therefore may not receive any return on our investment in tarloxotinib. Likewise, any meaningful preclinical development, beyond identifying other potential lead clinical compounds from our preclinical oncology program, will require us to obtain additional funding, and our ability to meaningfully advance development of other oncology compounds is subject to our ability to obtain additional funding. If we do not have sufficient funds, we will not be able to advance the development of our product candidates or otherwise bring our product candidates to market and generate product revenues.

Any collaborative arrangements that we establish in the future may not be successful or we may otherwise not realize the anticipated benefits from these collaborations. In addition, any future collaborative arrangements may place the development and commercialization of our product candidates outside our control, may require us to relinquish important rights or may otherwise be on terms unfavorable to us.

We have in the past established and intend to continue to establish collaborations with third parties to develop and commercialize our product candidates, and these collaborations may not be successful or we may otherwise not realize the anticipated benefits from these collaborations. For example, in March 2016, we and Merck KGaA, mutually agreed to terminate our collaboration for the development and commercialization of our evofosfamide product candidate, and, as a result, we will not receive any additional milestone payments or other funding from Merck KGaA on account of our collaboration with Merck KGaA. As of the date of this report, we have no ongoing collaborations for the development and commercialization of our product candidates. We may not be able to locate third-party collaborators to develop and market our product candidates, and we lack the capital and resources necessary to develop our product candidates alone.

Dependence on collaborative arrangements subjects us to a number of risks, including:

- we may not be able to control the amount and timing of resources that our potential collaborators may devote to our product candidates;
- potential collaborations may experience financial difficulties or changes in business focus;
- we may be required to relinquish important rights such as marketing and distribution rights;
- should a collaborator fail to develop or commercialize one of our compounds or product candidates, we may not receive any future milestone payments and will not receive any royalties for the compound or product candidate;
- business combinations or significant changes in a collaborator's business strategy may also adversely affect a collaborator's willingness or ability to complete its obligations under any arrangement;
- under certain circumstances, a collaborator could move forward with a competing product candidate developed either independently or in collaboration with others, including our competitors; and
- collaborative arrangements are often terminated or allowed to expire, which could delay the development and may increase the cost of developing our product candidates.

Although Merck KGaA has obtained agreement with the FDA on an SPA for the pivotal Phase 3 clinical trial of evofosfamide in combination with gemcitabine for the treatment of previously untreated locally advanced unresectable or metastatic pancreatic cancer, the interpretation of the SPA may affect the outcome from regulatory review, including any regulatory approval.

Merck KGaA obtained an agreement with the FDA on an SPA for the MAESTRO trial of evofosfamide. The SPA process allows for FDA evaluation of a clinical trial protocol intended to form the primary basis of an efficacy claim in support of a new drug application, or NDA, and provides a product sponsor with an agreement confirming that the design and size of a trial will be appropriate to form the primary basis of an efficacy claim for an NDA if the trial is performed according to the SPA. Reaching agreement on an SPA is not an indication of approvability. Even if we believe that the reanalyzed data from the MAESTRO clinical trial are supportive, an SPA is not a guarantee of approval, and we cannot be certain that the design of, or data collected from, a trial will be adequate to demonstrate safety and efficacy, or otherwise be sufficient to support regulatory approval. There can be no assurance that the terms of an SPA will ultimately be binding on the FDA, and the FDA is not obligated to approve an NDA, if any, even if the aspects of the analysis of the MAESTRO data are positive. The FDA retains significant latitude and discretion in interpreting the terms of an SPA and the data and results from a clinical trial, and can require trial design changes or additional studies if issues arise essential to determining safety or efficacy. Data may subsequently become available that causes the FDA to reconsider the previously agreed upon scope of review and the FDA may have subsequent safety or efficacy concerns that override an SPA, and we can give no assurance that as part of a regulatory review process, if any, the FDA will determine that a previously approved SPA is still valid. As a result, we do not know how the FDA will interpret the commitments under the SPA agreement, how it will interpret the data and results from the MAESTRO trial, or whether evofosfamide will receive any regulatory approvals.

Additionally, a SPA may be changed only with written agreement of the FDA and sponsor, and any further changes we may propose to our respective protocols will remain subject to the FDA's approval. The FDA may not agree to any such amendment and, even if they agree, they may request other amendments to the trial design that could require additional cost and time, as well as increase the degree of difficulty in reaching approval. As a result, even with an SPA, we cannot be certain that the trial results from the MAESTRO trial will be found to be adequate to support an efficacy claim and product approval. Therefore, despite the potential benefits of SPA agreements, significant uncertainty remains regarding the clinical development of and regulatory approval process for evofosfamide and it is possible that we might never receive any regulatory approvals for evofosfamide.

Preclinical studies and Phase 1 or 2 clinical trials of our product candidates may not predict the results of subsequent human clinical trials.

Preclinical studies, including studies of our product candidates in animal models of disease, may not accurately predict the results of human clinical trials of those product candidates. In particular, promising animal studies suggesting the efficacy of evofosfamide for the treatment of different types of cancer may not accurately predict the ability of evofosfamide to treat cancer effectively in humans. Likewise, preclinical and Phase 1 clinical data that suggest that plasma concentrations of tarloxotinib that are active in tumor xenograft models in mice could be attained in patients may not accurately predict whether a safe and effective dose can be attained in humans. Similarly, while tarloxotinib has demonstrated, in preclinical studies, an ability to overcome non-T790M mediated resistance to conventional EGFR tyrosine kinase inhibitors and in preclinical studies hypoxia has been shown to increase EGFR signaling, these preclinical studies may not accurately predict the results of our ongoing Phase 2 proof-of-concept clinical trials of tarloxotinib in patients with EGFR-positive, T790M-negative non-small cell lung cancer and in patients with recurrent or metastatic squamous cell carcinoma of the head and neck or skin. Evofosfamide, tarloxotinib or any other compounds we may develop may be found not to be efficacious in treating cancer, alone or in combination with other agents, when studied in human clinical trials. In addition, we will not be able to commercialize our product candidates until we obtain FDA approval in the United States or approval by comparable regulatory agencies in Europe and other countries. A number of companies in the pharmaceutical industry, including us and those with greater resources and experience than us, have suffered significant setbacks in Phase 3 clinical trials, even after encouraging results in earlier clinical trials.

To satisfy FDA or foreign regulatory approval standards for the commercial sale of our product candidates, we must demonstrate in adequate and controlled clinical trials that our product candidates are safe and effective. Success in early clinical trials, including in Phase 2 clinical trials, does not ensure that later clinical trials will be successful. Initial results from Phase 1 and Phase 2 clinical trials of evofosfamide have in the past not been, and may again in the future not be, confirmed by later analysis or in subsequent larger clinical trials. For example, the results that achieved the primary endpoint for progression-free survival in the Phase 2b trial of evofosfamide in pancreatic cancer did not predict the results of overall survival for patients in the MAESTRO trial. Likewise, the results in the Phase 1/2 trial of evofosfamide in patients with soft tissue sarcoma did not predict the results of overall survival for patients in the 406 trial. In both cases, the 406 trial and the MAESTRO trial failed to meet their primary endpoints of demonstrating a statistically significant improvement in overall survival, based on our analyses for the 406 trial and Merck KGaA's analyses for the MAESTRO trial, notwithstanding positive results in earlier clinical trials. In addition, in January 2016, we announced that an IDSMB concluded that our registrational Phase 2 clinical trial of evofosfamide plus pemetrexed versus pemetrexed alone in patients with non-squamous non-small cell lung cancer was unlikely to reach its primary endpoint of improving overall survival with statistical significance and, as a result, enrollment in this trial was closed and in connection therewith, we determined to cease enrollment in all Threshold-sponsored trials of evofosfamide. As these examples illustrate, despite the results reported in earlier clinical trials for evofosfamide, we do not know whether potential future clinical trials that we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market evofosfamide. Our failure to successfully complete any potential future clinical trials and obtain regulatory approval for evofosfamide would materially and adversely affect our business and severely harm our future prospects.

Delays in our clinical trials could result in us not achieving anticipated developmental milestones when expected, increased costs and delay our ability to obtain regulatory approval and commercialize our product candidates.

Delays in the progression of our clinical trials could result in us not meeting previously announced clinical milestones and could materially impact our product development costs and milestone revenue and delay regulatory approval of our product candidates. We do not know whether our clinical trials of tarloxotinib or potential future clinical trials of evofosfamide will be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including:

- adverse safety events experienced during our clinical trials;
- a lower than expected frequency of clinical trial events;
- delays in obtaining clinical materials;
- slower than expected patient recruitment to participate in clinical trials;
- delays in reaching agreement on acceptable clinical trial agreement terms with prospective sites or obtaining institutional review board approval,
- delays in obtaining regulatory approval to commence new trials;
- changes to clinical trial protocols.

Delays in clinical trials can also result from difficulties in enrolling patients in our clinical trials, which could increase the costs or affect the timing or outcome of these clinical trials. This is particularly true with respect to diseases with relatively small patient populations. Timely completion of clinical trials depends, in addition to the factors outlined above, on our ability to enroll a sufficient number of patients, which itself is a function of many factors, including:

- the therapeutic endpoints chosen for evaluation;
- the eligibility criteria defined in the protocol;
- the perceived benefit of the investigational drug under study;
- the size of the patient population required for analysis of the clinical 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.

If we do not successfully complete our current and potential future clinical trials on schedule, the price of our common stock may further decline.

Our product candidates must undergo rigorous clinical testing, the results of which are uncertain and could substantially delay or prevent us from bringing them to market.

Before we can obtain regulatory approval for a product candidate, we must undertake extensive clinical testing in humans to demonstrate safety and efficacy to the satisfaction of the FDA or other regulatory agencies. Clinical trials of new drug candidates sufficient to obtain regulatory marketing approval are expensive and take years to complete.

We cannot be certain of our successfully completing clinical testing within the time frames we have planned or anticipated, or at all. 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, such as the results in the 406 trial and the MAESTRO trial, and we may decide, or regulators may require us, to conduct additional clinical and/or preclinical testing or to abandon programs;
- the results obtained in earlier stage clinical testing may not be indicative of results in future clinical trials;
- clinical trial results may not meet the level of statistical significance required by the FDA or other regulatory agencies;
- enrollment in clinical trials for our product candidates may be slower than we anticipate, resulting in significant delays and additional expense;
- we or regulators may suspend or terminate our clinical trials if the participating patients are being exposed to unacceptable health risks; and
- the effects of our product candidates on patients may not be the desired effects or may include undesirable side effects or other characteristics that may delay or preclude regulatory approval or limit their commercial use, if approved.

In addition, clinical results are susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Negative or inconclusive results or adverse safety events, including patient fatalities that may be attributable to our product candidates, during a clinical trial could cause the trial to be terminated or require additional studies. Furthermore, some of our clinical trials are overseen by IDMCs or Data and Safety Monitoring Boards, or DSMBs. These independent oversight bodies are comprised of external experts who review the progress of the ongoing clinical trials as well as safety from other trials, and make recommendations concerning a trial's continuation, modification, or termination based on periodic review of, unblinded data. Any of our potential future clinical trials overseen by an IDMC or DSMB may be discontinued or amended in response to recommendations made by responsible IDMCs or DSMBs based on their review of trial results and an IDMC or DSMB may determine to delay or suspend the trial due to safety or futility findings based on events occurring during a clinical trial. For example, in January 2016, we announced that an IDSMB concluded that our registrational Phase 2 clinical trial of evofosfamide plus pemetrexed versus pemetrexed alone in patients with non-squamous non-small cell lung cancer was unlikely to reach its primary endpoint of improving overall survival with statistical significance and, as a result, enrollment in this trial was closed and in connection therewith, we determined to cease enrollment in all Threshold-sponsored trials of evofosfamide. The recommended termination or modification of any of our potential future clinical trials by an IDMC or DSMB, could materially and adversely impact the future development of our product candidates, and our business, prospects, operating results, and financial condition may be materially harmed.

We are subject to significant regulatory approval requirements, which could delay, prevent or limit our ability to market ourproduct candidates.

Our research and development activities, preclinical studies, clinical trials and the anticipated manufacturing and marketing of our product candidates are subject to extensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in Japan, Europe and elsewhere. We require the approval of the relevant regulatory authorities before we may commence commercial sales of our product candidates in a given market. The regulatory approval process is expensive and time consuming, and the timing of receipt of regulatory approval is difficult to predict. Our product candidates could require a significantly longer time to gain regulatory approval than expected, or may never gain approval. We cannot be certain that, even after expending substantial time and financial resources, we will obtain regulatory approval for any of our product candidates. A delay or denial of regulatory approval could delay or prevent our ability to generate product revenues and to achieve profitability.

Changes in regulatory approval policies during the development period of any of our product candidates, changes in, or the enactment of, additional regulations or statutes, or changes in regulatory review practices for a submitted product application may cause a delay in obtaining approval or result in the rejection of an application for regulatory approval. Regulatory approval, if obtained, may be made subject to limitations on the indicated uses for which we may market a product. These limitations could adversely affect our potential product revenues. Regulatory approval may also require costly post-marketing follow-up studies. In addition, the labeling, packaging, adverse event reporting, storage, advertising, promotion and record-keeping related to the product will be subject to extensive ongoing regulatory requirements. Furthermore, for any marketed product, its manufacturer and its manufacturing facilities will be subject to continual review and periodic inspections by the FDA or other regulatory authorities. Failure to comply with applicable regulatory requirements may, among other things, result in fines, suspensions of regulatory approvals, product recalls, product seizures, operating restrictions and criminal prosecution.

Our product candidates are based on targeting the microenvironment of solid tumors and some hematological malignancies, which currently is an unproven approach to therapeutic intervention.

Our product candidates are designed to target the microenvironment of solid tumors and some hematological malignancies by, in the case of evofosfamide, harnessing hypoxia for selective toxin activation. We have not, nor to our knowledge has any other company, received regulatory approval for a drug based on this approach. We cannot be certain that our approach will lead to the development of approvable or marketable drugs. Our approach may lead to unintended, or off-target, adverse effects or may lack efficacy or contribution to efficacy in combination with other anti-cancer drugs.

In addition, the FDA or other regulatory agencies may lack experience in evaluating the safety and efficacy of drugs based on these targeting approaches, which could lengthen the regulatory review process, increase our development costs and delay or prevent commercialization of our product candidates.

Our product candidates may have undesirable side effects that prevent or delay their regulatory approval or limit their use if approved.

Anti-tumor drugs being developed by us are expected to have undesirable side effects. For example, in clinical trials of evofosfamide, some patients have exhibited skin and/or mucosal toxicities that have in some cases caused patients to stop or delay therapy. Likewise in our ongoing clinical trials of tarloxotinib, some patients have exhibited drug induced QT interval prolongation or the lengthening of time in the heart's electrical cycle that can potentially lead to life-threatening cardiac arrhythmias, that in some cases caused patients to stop or delay therapy. The extent, severity and clinical significance of these or other undesirable side effects may not be apparent initially and may be discovered or become more significant during drug development or even post-approval. These expected side effects or other side effects identified in the course of clinical trials or that may otherwise be associated with our product candidates may outweigh the benefits of our product candidates. Side effects may prevent or delay regulatory approval or limit market acceptance if our products are approved. In this regard, our product candidates may prove to have undesirable or unintended side effects or other characteristics adversely affecting their safety, efficacy or cost effectiveness that could prevent or limit their approval for marketing and successful commercial use, or that could delay or prevent the commencement and/or completion of clinical trials for our product candidates.

We have not yet gained sufficient experience with a commercial formulation of evofosfamide.

The formulation of evofosfamide that was the subject of our clinical trials was changed to address issues with a prior formulation that was subject to storage and handling requirements that were not suitable for a commercial product. The current formulation of evofosfamide may be suitable for a commercial product, but additional data will be required to verify this and there can be no assurance that we will be able to do so in a timely manner, if at all. If we are not able to develop a viable commercial formulation of evofosfamide, then we may be required to conduct additional Phase 3 clinical trials of evofosfamide, or we may need to develop an alternative commercial formulation, either of which could delay, perhaps substantially, our ability to obtain any regulatory approvals of evofosfamide.

The initial clinical formulations developed for tarloxotinib and our potential future product candidates may not remain stable throughout the clinical testing phase.

We have limited experience and data on the drug substance synthesis and the initial formulation for tarloxotinib. This initial formulation and those of our potential future product candidates may not remain stable during the clinical testing phase. If these formulations were found to be unstable during clinical testing, we may be required to repeat the initial clinical trials which could increase our costs and delay the development of the applicable product candidate. We may be required to reformulate these product candidates, including tarloxotinib, to improve stability. However, it is possible that we might not be able to develop a formulation of tarloxotinib or other future product candidates with adequate quality that meets the need for testing in our clinical trials. We may also be required to perform additional clinical bridging studies which may further delay development. We may also be unable to scale up the manufacturing process to synthesize the current drug substance and current formulations, or the newly developed formulations, any of which could adversely affect our ability to advance the development of, and potentially obtain regulatory approval of, the applicable product candidate.

Even though we have received orphan drug designation for evofosfamide, we may not receive orphan drug marketing exclusivity for evofosfamide. Even if we obtain orphan drug exclusivity, orphan drug exclusivity would afford us limited protection, and if another party obtains orphan drug exclusivity for the drugs and indications we are targeting, we may be precluded from commercializing our product candidates in those indications.

We have received orphan drug designation for evofosfamide for the treatment of pancreatic cancer in the United States and the European Union or EU. Under the Orphan Drug Act in the United States, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is defined by the FDA as a disease or condition that affects fewer than 200,000 individuals in the United States. In the EU, orphan drug designation is provided for a drug that is intended to diagnose, prevent or treat a life-threatening or chronically debilitating condition which affects no more than 5 in 10,000 individuals in the EU (approximately 245,000 individuals) and for which no satisfactory method of diagnosis, prevention or treatment of the condition already exists, or if such method does exist, that the orphan product must be of significant benefit to the patient population over existing products. The company that obtains the first FDA approval for a designated orphan drug indication receives marketing exclusivity for use of that drug for that indication for a period of seven years in the U.S. and 10 years for the EU. The orphan drug designation also allows a waiver or reduction in select regulatory fees. Orphan drug exclusive marketing rights may be lost if the FDA later determines that the request for designation was materially defective, or if the manufacturer is unable to assure sufficient quantity of the drug. Orphan drug designation does not shorten the development or regulatory review time of a drug.

Even if we obtain orphan drug exclusivity for evofosfamide, orphan drug exclusivity may not prevent other market entrants. A different drug, or, under limited circumstances, the same drug may be approved by the FDA for the same orphan indication. The limited circumstances include an inability to supply the drug in sufficient quantities or where a new formulation of the drug has shown superior safety or efficacy. As a result, if evofosfamide were approved for pancreatic cancer, other drugs could still be approved for use in treating the same indications covered by evofosfamide, which could create a more competitive market for us.

Moreover, due to the uncertainties associated with developing pharmaceutical products, we may not be the first to obtain marketing approval for any orphan drug indication. Although we have obtained orphan drug designation, if a competitor obtains regulatory approval for evofosfamide for the same indication we are targeting before we do, we would be blocked from obtaining approval for that indication for seven years, unless our product is a new formulation of the drug that has shown superior safety or efficacy, or the competitor is unable to supply sufficient quantities.

The "fast track" designation for development of any of our product candidates may not lead to a faster development or regulatory review or approval process and it does not increase the likelihood the product candidate will receive regulatory approval.

If a product candidate is intended for the treatment of a serious or life-threatening condition and the product candidate demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply for FDA "fast track" designation for a particular indication. Marketing applications filed by sponsors of product candidates in the fast track process may qualify for priority review under the policies and procedures offered by the FDA, but the fast track designation does not assure any such review. Merck KGaA, has obtained fast track designation for the development of evofosfamide, administered in combination with gemcitabine, for the treatment of previously untreated patients with metastatic or locally advanced unresectable pancreatic cancer, receipt of fast track designation does not ensure a faster development process, review or FDA approval. In addition, the FDA may withdraw our fast track designation at any time. If we lose fast track designation for evofosfamide, the approval process may be delayed. In addition, fast track designation does not guarantee that we will be able to take advantage of the expedited review procedures and does not increase the likelihood that evofosfamide will receive any regulatory approvals.

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

In March 2013, we announced the acquisition of [18F]-HX4 [flortanidazole (18F)] from Siemens Healthcare. [18F]-HX4 is an investigational radiolabeled hypoxia Positron Emission Tomography tracer developed by Siemens Healthcare Molecular Imaging to potentially identify and quantify the degree of hypoxia in tumors *in vivo*. [18F]-HX4 could potentially be used as a companion diagnostic to hypoxia-targeted therapeutics based on our drug discovery platform. A companion diagnostic is a test or measurement intended to assist physicians in making treatment decisions for their patients. We initially intend to develop [18F]-HX4 to determine a patient's tumor hypoxia profile, which may identify patients who will best respond to our hypoxia targeted therapeutics. 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 may encounter difficulties in developing and obtaining approval for [18F]-HX4, including issues relating to selectivity/specificity, analytical validation, reproducibility, or clinical validation, and we may have difficulties gaining market acceptance of the use of [18F]-HX4 in the clinical or medical community. Because [18F]-HX4 is at an early stage of development, we have yet to seek a meeting with the FDA to discuss our potential [18F]-HX4 companion diagnostic development plans, and therefore cannot yet know what the FDA will require in order to obtain regulatory approval of [18F]-HX4. In any event, we may not be able to develop or obtain any regulatory approval or clearance for [18F]-HX4, and we may therefore not realize any return on our investment in [18F]-HX4.

We currently lack the ability to discover additional prodrug product candidates and we also may not be able to successfully acquire or in-license and develop additional prodrug product candidates or programs suitable for clinical testing, either of which could limit our growth and revenue potential.

While we remain focused on the design and development of novel cyotoxic prodrug compounds for the treatment of cancer, evofosfamide and tarloxotinib are currently our only product candidates in clinical development and we may be unable to develop additional product candidates suitable for clinical testing. In this regard, as part of our workforce reduction in December 2015 that followed the reported negative results from the two Phase 3 clinical trials of evofosfamide, we eliminated our discovery research activities conducted in-house, which prevents our ability to discover additional prodrug product candidates at this time. Accordingly, our strategy may include acquiring or in-licensing additional product candidates or development programs that build on our expertise and complement our pipeline. Any growth through acquisition or in-licensing will depend upon the availability of suitable product candidates at favorable prices and upon advantageous terms and conditions. Even if appropriate acquisition or in-licensing opportunities are available, we currently do not have, and may not in the future have, the financial resources necessary to pursue them. In addition, other companies, many of which may have substantially greater financial, marketing and sales resources, compete with us for acquisition or in-licensing opportunities. In addition, we may not be able to realize the anticipated benefits of any acquisition or in-licensing opportunity for a variety of reasons, including the possibility that a product candidate proves not to be safe or effective in later clinical trials or the integration of an acquired or licensed product candidate gives rise to unforeseen difficulties and expenditures. For example, in September 2014, we licensed rights to tarloxotinib, a clinical-stage investigational compound that we are evaluating in two Phase 2 proof-of-concept clinical trials, one in a population of patients with non-small cell lung cancer and one in a population in patients with squamous cell carcinoma of the head and neck or skin. However, our evaluation of tarloxotinib is at an early stage and it is possible that tarloxotinib may not be found to be safe or effective in our ongoing Phase 2 proof-of-concept clinical trials or in any other studies that we may conduct, and we may otherwise fail to realize the anticipated benefits of our licensing of this product candidate. In this regard, tarloxotinib was previously being developed in a different patient population than the populations we are targeting and a prior clinical trial evaluating tarloxotinib in that different patient population was terminated prematurely due to unacceptable toxicity. While we are evaluating tarloxotinib in patient populations that we believe may be responsive to tarloxotinib at doses lower than was targeted in the terminated clinical trial, we cannot assure you that we will be able to determine an appropriate dose that is both safe and effective for the patient populations we are targeting. In any event, any growth through development of additional product candidates will depend principally on our ability to identify, and then to obtain the necessary funding to pursue the acquisition of in-licensing of, additional product candidates on commercially reasonable terms, as well as our ability to develop those product candidates and our ability to obtain additional funding, whether through partnering arrangements or otherwise, to complete the development of, obtain regulatory approval for and commercialize these product candidates. If we are unable to discover or obtain suitable product candidates for development, our growth and revenue potential could be significantly harmed.

Even if we obtain regulatory approval, our marketed drugs will be subject to ongoing regulatory review. If we fail to comply with continuing United States and foreign regulations, we or they could lose our approvals to market drugs and our business would be seriously harmed.

Following initial regulatory approval of any drugs we may develop, we will be subject to continuing regulatory review, including review of adverse drug experiences and clinical results that are reported after our drug products become commercially available. This would include results from any post-marketing tests or vigilance required as a condition of approval. The manufacturer and manufacturing facilities used to make any of our drug candidates will also be subject to periodic review and inspection by the FDA or foreign regulatory agency. If a previously unknown problem or problems with a product or a manufacturing and laboratory facility used by us is discovered, the FDA or foreign regulatory agency may impose restrictions on that product or on the manufacturing facility, including requiring us to withdraw the product from the market. Any changes to an approved product, including the way it is manufactured or promoted, often require FDA or foreign regulatory agency approval before the product, as modified, can be marketed. Manufacturers of our products, if approved, will be subject to ongoing FDA or foreign regulatory agency requirements for submission of safety and other post-market information. If such manufacturers fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters;
- impose civil or criminal penalties;
- suspend or withdraw our regulatory approval;
- suspend or terminate any of our ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications filed by us;
- impose restrictions on our operations;
- close the facilities of our contract manufacturers;

- seize or detain products or require a product recall, or
- revise or restrict labeling and promotion.

The FDA and foreign regulatory authorities may impose significant restrictions on the indicated uses and marketing of pharmaceutical products.

Even if we obtain regulatory approval for evofosfamide, we would be subject to ongoing requirements by the FDA and comparable foreign regulatory authorities governing the manufacture, quality control, further development, labeling, packaging, storage, distribution, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-market information. The safety profile of any product will continue to be closely monitored by the FDA and comparable foreign regulatory authorities after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information after approval of any of our product candidates, they may require labeling changes or establishment of a REMS or similar strategy, impose significant restrictions on a product's indicated uses or marketing, or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance. For example, the label ultimately approved for evofosfamide, if it achieves marketing approval, may include restrictions on use. Advertising and promotion of any product candidate that obtains approval in the United States will be heavily scrutinized by the FDA, the Department of Justice, or the DOJ, the Office of Inspector General of the Department of Health and Human Services, or HHS, state attorneys general, members of Congress and the public. Violations, including promotion of our products for unapproved or off-label uses, are subject to enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA. Additionally, advertising and promotion of any product candidate that obtains approval outside of the United States will be heavily scrutinized by comparable foreign regulatory authorities. In the United States, engaging in impermissible promotion of any approved products for off-label uses could also subject us to false claims litigation under federal and state statutes, which could lead to civil and criminal penalties and fines and agreements that materially restrict the manner in which we promote or distribute any approved products.

These false claims statutes include the federal False Claims Act, which allows any individual to bring a lawsuit against a pharmaceutical company on behalf of the federal government alleging submission of false or fraudulent claims, or causing to present such false or fraudulent claims, for payment by a federal program such as Medicare or Medicaid. If the government prevails in the lawsuit, the individual will share in any fines or settlement funds. Since 2004, these False Claims Act lawsuits against pharmaceutical companies have increased significantly in volume and breadth, leading to several substantial civil and criminal settlements based on certain sales practices promoting off-label drug uses. This growth in litigation has increased the risk that a pharmaceutical company will have to defend a false claim action, pay settlement fines or restitution, agree to comply with burdensome reporting and compliance obligations, and be excluded from the Medicare, Medicaid and other federal and state healthcare programs. If we do not lawfully promote any approved products, we may become subject to such litigation and, if we are not successful in defending against such actions, those actions could compromise our ability to become profitable.

We do not have a sales force or marketing infrastructure and may not develop an effective one.

We have no sales experience, as a company. There are risks involved with establishing our own sales and marketing capabilities, as well as entering into arrangements with third parties to perform these services. Developing an internal sales force and function will require substantial expenditures and will be time-consuming, and we may not be able to effectively recruit, train or retain sales personnel. On the other hand, if we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenues will be lower than if we market and sell any products that we develop ourselves. We may not be able to effectively sell evofosfamide, if approved, and if we exercise our rights to do so, which could materially harm our business and our financial condition.

Risks Related to Our Financial Performance and Operations

We have incurred losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future, and our future profitability is uncertain.

Due to the recognition of the remaining $65.9 million of deferred revenue from our former collaboration with Merck KGaA during the quarter ended December 31, 2015, we reported net income of $43.8 million for the year ended December 31, 2015. However, wehave incurred losses in each of our other years since our inception in 2001, and we expect to incur losses for the foreseeable future. We have devoted, and will continue to devote for the foreseeable future, substantially all of our resources to development of our product candidates, principally evofosfamide. Accordingly, our future prospects are substantially dependent on the successful development, regulatory approval and commercialization of evofosfamide. In this regard, a substantial portion of our efforts have been devoted to the two pivotal Phase 3 clinical trials of evofosfamide. The failure of the 406 trial and the MAESTRO trial to meet their primary endpoints of demonstrating a statistically significant improvement in overall survival as agreed upon with the FDA, based on our analyses for the 406 trial and Merck KGaA's analyses for the MAESTRO trial, has significantly depressed our stock price and harmed our future prospects. Although we are conducting our own analyses of the data from MAESTRO trial andintend to review and discuss the results of our analyseswith health regulatory authorities, including the FDA and the PMDA in Japan, to determine whether there is an appropriate path forward for submitting marketing authorization applications based on the data from the MAESTRO trial, the FDA, PMDA and other health regulatory authorities may determine that the data from the MAESTRO trial are insufficient to support the approval of any marketing authorization and that one or more additional clinical trials of evofosfamide would be required to be successfully conducted by us in order to support any such approval, including with respect to any patient subgroups that we may identify that we believe may potentially benefit from treatment with evofosfamide and gemcitabine. If we are required to successfully conduct and complete any additional clinical trials ofevofosfamide in order to support potential approval ofevofosfamide, we would be required to obtain additional capital and there can be no assurances that we would be successful in obtaining the additional funding, whether through new partnering or collaboration arrangements or otherwise, necessary to support any additional clinical development of evofosfamide. For these and other reasons, we cannot assure you that we will be able to advance the development of evofosfamide. In such event, we may be required to abandon the development ofevofosfamide and forego any return on our investment from our evofosfamide program, which would severely harm our future prospects and may cause us to cease operations. In any event,we do not expect to generate any revenue from the commercial sales of our product candidates in the near term, and we expect to continue to have significant losses for the foreseeable future.

To attain ongoing profitability, we will need to develop products successfully and market and sell them effectively, or rely on other parties to do so. We cannot predict when we will achieve ongoing profitability, if at all. We have never generated revenue from the commercial sales of our product candidates, and there is no guarantee that we will be able to do so in the future. If we fail to become profitable, or if we are unable to fund our continuing losses, we would be unable to continue our research and development programs.

We will require substantial additional funding and may be unable to raise capital when needed, which could force us to delay, reduce or eliminate our drug discovery, product development and commercialization activities.

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

- the terms and timing of any future collaborative, licensing, acquisition or other arrangements that we may establish for our product candidates;
- the amount and timing of any licensing fees, milestone payments and royalty payments from potential future partners or collaborators, if any;
- the scope, rate of progress and cost of our clinical trials and other development activities;
- the costs and timing of obtaining regulatory approvals;
- the cost of manufacturing clinical, and establishing commercial, supplies of our product candidates and any products that we may develop;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the costs of filing, prosecuting, defending and enforcing any patent applications, claims, patents and other intellectual property rights;
- the cost and timing of securing manufacturing capabilities for our clinical product candidates and commercial products, if any; and

- the costs of lawsuits involving us or our product candidates.
- Limitations on future evofosfamide and tarloxotinib development presented by our current cash constraints.

We believe that our cash, cash equivalents and marketable securities will be sufficient to fund our projected operating requirements for at least the next 12 months based upon current operating plans and spending assumptions. However, we will need to raise additional capital to advance the clinical development of evofosfamide and tarloxotinib, whether through new collaborative or partnering arrangements or otherwise, and to in-license or otherwise acquire and develop additional product candidates or programs. In particular, our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development, particularly since we are no longer eligible to receive any further milestone payments or other funding from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA.

While we have been able to fund our operations to date, we currently have no ongoing collaborations for the development and commercialization of our product candidates and no source of revenue, nor do we expect to generate revenue for the foreseeable future. We also do not have any commitments for future external funding. Until we can generate a sufficient amount of product revenue, which we may never do, we expect to finance future cash needs through a variety of sources, including:

- the public equity market;
- private equity financing;
- collaborative arrangements;
- licensing arrangements; and/or
- public or private debt.

Our ability to raise additional funds and the terms upon which we are able to raise such funds have been severely harmed by the negative results reported from our two pivotal Phase 3 clinical trials of evofosfamide, and may in the future be adversely impacted by the uncertainty regarding the prospects for future development ofevofosfamide and our ability to advance the development of evofosfamide and tarloxotinib or otherwise realize any return on our investments in evofosfamide and tarloxotinib, if at all. Our ability to raise additional funds and the terms upon which we are able to raise such funds may also be adversely affected by the uncertainties regarding our financial condition, the sufficiency of our capital resources, our ability to maintain the listing of our common stock on The NASDAQ Capital Market and recent and potential future management turnover. As a result of these and other factors, we cannot be certain that sufficient funds will be available to us or on satisfactory terms, if at all.To the extent we raise additional funds by issuing equity securities, our stockholders may experience significant dilution, particularly given our currently depressed stock price, and debt financing, if available, may involve restrictive covenants. If adequate funds are not available, we may be required to significantly reduce or refocus our operations or to obtain funds through arrangements that may require us to relinquish rights to our product candidates, technologies or potential markets, any of which could result in our stockholders having little or no continuing interest in our evofosfamide or tarloxotinib programs as stockholders or otherwise, or which could delay or require that we curtail or eliminate some or all of our development programs or otherwise have a material adverse effect on our business, financial condition and results of operations. In addition, we may have to delay, reduce the scope of or eliminate some of our development, which could delay the time to market for any of our product candidates, if adequate funds are not available.

If we are unable to secure additional funding on a timely basis or on terms favorable to us, we may be required to cease or reduce certain development projects, to conduct additional workforce reductions, to sell some or all of our technology or assets or to merge all or a portion of our business with another entity. Insufficient funds may require us to delay, scale back, or eliminate some or all of our activities, and if we are unable to obtain additional funding, there is uncertainty regarding our continued existence.

Our financial results are likely to fluctuate from period to period, making it difficult to evaluate our stock based on financial performance.

We believe that period-to-period comparisons of our operating results should not be relied upon as predictive of future performance. Our prospects must be considered in light of the risks, expenses and difficulties encountered by companies with no approved pharmaceutical products, and with product candidates that are undergoing clinical development.

Our success depends in part on attracting, retaining and motivating key personnel and, if we fail to do so, it may be more difficult for us to execute our business strategy. As a small organization we are dependent on key employees and we will to hire additional personnel to execute our business strategy successfully.

Our success depends on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel and on our ability to develop and maintain important relationships with leading academic institutions, clinicians and scientists. We are highly dependent upon our senior management and scientific staff, particularly our Chief Executive Officer, Dr. Harold E. Selick. We do not have an employment agreement with Dr. Selick. The loss of the services of Dr. Selick or one or more of our other key employees could delay or adversely impact the development of our product candidates.

In December 2015, we announced a workforce reduction constituting approximately two-thirds of our workforce and as of December 31, 2015, we had only 26 employees. Our success will depend on our ability to retain and motivate remaining personnel and hire additional qualified personnel when required, and our history of implementing workforce reductions, along with the potential for future workforce reductions, may negatively affect our ability to retain and/or attract talented employees. In addition, competition for qualified personnel in the biotechnology field is intense. We face competition for personnel from other biotechnology and pharmaceutical companies, universities, public and private research institutions and other organizations. We may not be able to attract and retain qualified personnel on acceptable terms given the competition for such personnel. If we are unsuccessful in our retention, motivation and recruitment efforts, we may be unable to execute our business strategy.

In addition, certain members of our management terms were part of our December 2015 workforce reduction, including our former senior vice presidents of regulatory affairs and pharmaceutical development and manufacturing as well as our former Chief Scientific Officer. Management transition inherently causes some loss of institutional knowledge, which can negatively affect strategy and execution and disrupt our ability to successfully manage and grow our business, and our results of operations and financial condition could suffer as a result.

Significant disruptions of information technology systems or breaches of data security could adversely affect our business.

Our business is increasingly dependent on critical, complex and interdependent information technology systems, including Internet-based systems, to support business processes as well as internal and external communications. The size and complexity of our computer systems make them potentially vulnerable to breakdown, malicious intrusion and computer viruses that may result in the impairment of production and key business processes.

In addition, our systems are potentially vulnerable to data security breaches — whether by employees or others — that may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, clinical trial patients, customers and others. Such disruptions and breaches of security could have a material adverse effect on our business, financial condition and results of operations.

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

Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post- change taxable income or taxes may be limited. Our prior and potential future equity offerings and other changes in our stock ownership, some of which are outside of our control, may have resulted or could in the future result in an ownership change. If a limitation were to apply, utilization of a portion of our domestic net operating loss and tax credit carryforwards could be limited in future periods and a portion of the carryforwards could expire before being available to reduce future income tax liabilities.

Our facilities in California are located near an earthquake fault, and an earthquake or other natural disaster or resource shortage could disrupt our operations.

Important documents and records, such as hard copies of our laboratory books and records for our product candidates, are located in our corporate facilities in South San Francisco, California, near active earthquake zones. In the event of a natural disaster, such as an earthquake, drought or flood, or localized extended outages of critical utilities or transportation systems, we do not have a formal business continuity or disaster recovery plan, and could therefore experience a significant business interruption. In addition, California from time to time has experienced shortages of water, electric power and natural gas. Future shortages and conservation measures could disrupt our operations and could result in additional expense. Although we maintain business interruption insurance coverage, the policy specifically excludes coverage for earthquake and flood.

Risks Related to Our Dependence on Third Parties

We rely on third parties to manufacture evofosfamide and tarloxotinib and expect to rely on third parties to manufacture any other product candidates that we may develop. If these parties do not manufacture the active pharmaceutical ingredients or finished drug products of satisfactory quality, in a timely manner, in sufficient quantities or at an acceptable cost, clinical development and commercialization of evofosfamide, tarloxotinib and any other product candidates we may develop could be delayed.

We do not have our own manufacturing capability for the evofosfamide active pharmaceutical ingredient, or API or evofosfamide drug product, however we can obtain clinical and commercial supplies directly from existing or new suppliers. To date, however, we have relied on, and we expect to continue to rely on, a limited number of third party contract manufacturers and excipient suppliers for the evofosfamide API and evofosfamide drug product to meet our clinical supply needs of evofosfamide. We have no long-term commitments or commercial supply agreements with any of our evofosfamide suppliers. Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our ability to develop and commercialize any product candidates on a timely and competitive basis.

We need to have sufficient evofosfamide API and drug product manufactured to meet the clinical supply demands for our clinical trials. If we are not successful in having sufficient quantities of evofosfamide API and drug product manufactured, or if manufacturing is interrupted at our contract manufacturers and excipient suppliers for evofosfamide API and our evofosfamide drug product manufacturers due to regulatory or other reasons, or consume more drug product than anticipated because of a higher than expected trial utilization or have quality issues that limit the utilization of the drug product, we may experience a significant delay in our evofosfamide clinical program. In any event, we will need to order additional evofosfamide API and drug product and we have in the past experienced delays in the receipt of satisfactory drug product, and any additional delays we may experience in the receipt of satisfactory evofosfamide API or drug product could cause significant delays in our clinical trials, which would harm our business. Moreover the need for additional supplies and preparation for registration may require manufacturing process improvements in evofosfamide API and drug product. The manufacturing processes improvements for the evofosfamide API may require facilities upgrades at our suppliers, which may lead to delays or disruption in supply, or delays in regulatory approval of evofosfamide. Changes to the formulation of evofosfamide for our clinical trials may also require bridging studies to demonstrate the comparability of the new formulation with the old. These studies may delay our clinical trials and may not be successful. If we are not successful in procuring sufficient evofosfamide clinical trial material, we may experience a significant delay in our evofosfamide clinical program. Finally, we have not engaged any backup or alternative suppliers for parts of our evofosfamide supply chain for our clinical trials. If we are required to engage a backup or alternative supplier, the transfer of technical expertise and manufacturing process to the backup or alternative supplier would be difficult, costly and time-consuming and would increase the likelihood of a significant delay or interruption in manufacturing or a shortage of supply of evofosfamide.

In any event, additional agreements for more supplies of each of our product candidates, including evofosfamide, will be needed to complete clinical development and/or commercialize them. In this regard, we may need to enter into agreements for additional supplies of evofosfamide to commercialize it or develop such capability itself. We cannot be certain that we can do so on favorable terms, if at all. We will need to satisfy all current good manufacturing practice, or cGMP, regulations, including passing specifications. Our inability to satisfy these requirements could delay our clinical programs and the potential commercialization of evofosfamide if approved for commercial sale.

If evofosfamide or any of our other product candidates is approved by the FDA or other regulatory agencies for commercial sale, we will need to have it manufactured in commercial quantities. It may not be possible to successfully manufacture commercial quantities of evofosfamide or increase the manufacturing capacity for evofosfamide or any of our other product candidates in a timely or economically feasible manner. Prior to commercial launch of evofosfamide, we may be required to manufacture additional validation batches, which the FDA and other regulatory agencies must review and approve. If we are unable to successfully manufacture the additional validation batches or increase the manufacturing capacity for evofosfamide or any other product candidates, the regulatory approval or commercial launch of that product candidate may be delayed, or there may be a shortage of supply which could limit sales.

In addition, if the facility or the equipment in the facility that produces our product candidates is significantly damaged or destroyed, adversely impacted by an action of a regulatory agency or if the facility is located in another country and trade or commerce with or exportation from such country is interrupted or delayed, we may be unable to replace the manufacturing capacity quickly or inexpensively. The inability to obtain manufacturing agreements, the damage or destruction of a facility on which we rely for manufacturing or any other delays in obtaining supply would delay or prevent us from completing our clinical trials and commercializing our current product candidates.

In addition, the evofosfamide formulation includes excipients that might be available from a limited number of suppliers. We have not signed long term supply agreements with these excipient suppliers. We will need to enter into long term supply agreements to ensure uninterrupted supply of these excipients to continuously manufacture clinical batches or commercial supplies, which we may be unable to do in a timely or economically feasible manner or at all.

We also expect to rely on contract manufacturers or other third parties to produce sufficient quantities of clinical trial product for any other product candidates that we may develop. In this regard, while we have obtained certain quantities of tarloxotinib API and drug product from our licensor, we may determine that such API and drug product is not usable or is otherwise insufficient in order for us to complete our Phase 2 proof-of-concept clinical trials of tarloxotinib and we may need to obtain sufficient supplies of tarloxotinib API and drug product from contract manufacturers in order for us to complete either or both of our Phase 2 proof-of-concept clinical trials, which could delay the completion of these clinical trials, could increase our costs and could negatively impact our tarloxotinib development program. Depending upon the duration of the clinical studies, we might need to develop a new formulation of tarloxotinib. It is possible that we might not be able to develop a formulation with adequate quality that meets the need for testing in our clinical trials. In any event, in order for us to commence any potential future clinical trials of our product candidates, we need to obtain or have manufactured sufficient quantities of clinical trial product and there can be no assurance that we will be able to obtain sufficient quantities of clinical trial product in a timely manner or at all. Any delay in receiving sufficient supplies of clinical trial product for our potential future studies could negatively impact our development programs.

We have no control over our manufacturers' and suppliers' compliance with manufacturing regulations, and their failure to comply could result in an interruption in the supply of our product candidates.

The facilities used by our single source contract manufacturers must undergo an inspection by the FDA and foreign agencies for compliance with cGMP regulations, before the respective product candidates can be approved in their region. In the event these facilities do not receive a satisfactory cGMP inspection for the manufacture of our product candidates, we may need to fund additional modifications to our manufacturing process, conduct additional validation studies, or find alternative manufacturing facilities, any of which would result in significant cost to us as well as a delay of up to several years in obtaining approval for such product candidate. In addition, our contract manufacturers, and any alternative contract manufacturer we 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 do not have control over our contract manufacturers' compliance with these regulations and standards. Any failure by our third-party manufacturers or suppliers to comply with applicable regulations could result in sanctions being imposed on them (including fines, injunctions and civil penalties), failure of regulatory authorities to grant marketing approval of our product candidates, delays, suspension or withdrawal of approvals, warning letters, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecution.

We rely on third parties to conduct some of our clinical trials, and their failure to perform their obligations in a timely or competent manner may delay development and commercialization of our product candidates.

We may use clinical research organizations to assist in conduct of our clinical trials. There are numerous alternative sources to provide these services. However, 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. This risk is heightened for clinical trials conducted outside of the United States, where it may be more difficult to ensure that clinical trials 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 submit NDAs to the FDA, the commercial prospects for product candidates could be harmed and our ability to generate product revenue would be delayed or prevented.

We are dependent on Eleison Pharmaceuticals, Inc. to develop and commercialize glufosfamide

We are dependent upon Eleison Pharmaceuticals, Inc., or Eleison to whom we exclusively licensed glufosfamide in October 2009, to develop and commercialize glufosfamide. Any profit sharing or other payments to us under the Eleison license depend almost entirely upon the efforts of Eleison, which may not be able to raise sufficient funds to continue clinical development activities with glufosfamide. Even if Eleison is successful at raising sufficient funding, it may not be successful in developing and commercializing glufosfamide. We may also be asked to provide technical assistance related to the development of glufosfamide, which may divert our resources from other activities. If the Eleison license terminates in such a way that glufosfamide reverts to us and we seek alternative arrangements with one or more other parties to develop and commercialize glufosfamide, we may not be able to enter into such an agreement with another suitable third party or third parties on acceptable terms or at all. In such event, since we have no further development plans for glufosfamide, we may not receive any further return on our investment in glufosfamide.

Risks Related to Our Intellectual Property

Hypoxia-targeted prodrug technology is not a platform technology broadly protected by patents, and others may be able to develop competitive drugs using this approach.

Although we have U.S. and foreign issued patents that cover certain hypoxia-targeted prodrugs, including evofosfamide and tarloxotinib, we have no issued patents or pending patent applications that would prevent others from taking advantage of hypoxia- targeted prodrug technology generally to discover and develop new therapies for cancer or other diseases. Consequently, our competitors may seek to discover and develop potential therapeutics that operate by mechanisms of action that are the same or similar to the mechanisms of action of our hypoxia-targeted prodrug product candidates.

We are dependent on patents and proprietary technology. If we fail to adequately protect this intellectual property or if we otherwise do not have exclusivity for the marketing of our products, our ability to commercialize products could suffer.

Our commercial success will depend in part on our ability to obtain and maintain patent protection sufficient to prevent others from marketing our product candidates, as well as to defend and enforce these patents against infringement and to operate without infringing the proprietary rights of others. We will only be able to protect our product candidates from unauthorized use by third parties to the extent that valid and enforceable patents cover our product candidates or their manufacture or use or if they are effectively protected by trade secrets. If our patent applications do not result in issued patents, or if our patents are found to be invalid, we will lose the ability to exclude others from making, using or selling the inventions claimed therein. We have a limited number of patents and pending patent applications.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the United States. The laws of many countries may not protect intellectual property rights to the same extent as United States laws, and those countries may lack adequate rules and procedures for defending our intellectual property rights. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. We do not know whether any of our patent applications will result in the issuance of any patents and we cannot predict the breadth of claims that may be allowed in our patent applications or in the patent applications we may license from others.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- we might not have been the first to make the inventions covered by each of our pending patent applications and issued patents, and we may have to participate in expensive and protracted interference proceedings to determine priority of invention;
- we might not have been the first to file patent applications for these inventions;
- others may independently develop identical, similar or alternative product candidates to any of our product candidates;
- our pending patent applications may not result in issued patents;
- our issued patents may not provide a basis for commercially viable products or may not provide us with any competitive advantages or may be challenged by third parties;
- others may design around our patent claims to produce competitive products that fall outside the scope of our patents;
- we may not develop additional patentable proprietary technologies related to our product candidates; or
- the patents of others may prevent us from marketing one or more of our product candidates for one or more indications that may be valuable to our business strategy.

Moreover, an issued patent does not guarantee us the right to practice the patented technology or commercializethe patented product. Third parties may have blocking patents that could be used to prevent us from commercializing our patented products and practicing our patented technology. Our issued patents and those that may be issued in the future may be challenged, invalidated or circumvented, which could limit our ability to prevent competitors from marketing the same or related product candidates or could limit the length of the term of patent protection of our product candidates. In addition, the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop similar technologies. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any of our product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent. Patent term extensions may not be available for these patents. If we are not able to obtain adequate protection for, or defend, the intellectual property position of evofosfamide or any other potential future product candidates, then we may not be able to retain or attract collaborators to partner our development programs, including evofosfamide. Further, even if we can obtain protection for and defend the intellectual property position of evofosfamide or any potential future product candidates, we or any of our potential future collaborators still may not be able to exclude competitors from developing or marketing competing drugs. Should this occur, we, and potential future collaborators may not generate any revenues or profits from evofosfamide, tarloxotinib or any potential future product candidates or our revenue or profit potential would be significantly diminished.

We rely on trade secrets and other forms of non-patent intellectual property protection. If we are unable to protect our trade secrets, other companies may be able to compete more effectively against us.

We rely on trade secrets to protect certain aspects of our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect, especially in the pharmaceutical industry, where much of the information about a product must be made public during the regulatory approval process. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using our trade secret information is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to or may not protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

If we are sued for infringing intellectual property rights of third parties or if we are forced to engage in an interference proceeding, it will be costly and time consuming, and an unfavorable outcome in that litigation or interference would have a material adverse effect on our business.

Our ability to commercialize our product candidates depends on our ability to develop, manufacture, market and sell our product candidates without infringing the proprietary rights of third parties. Numerous United States and foreign patents and patent applications, which are owned by third parties, exist in the general field of cancer therapies or in fields that otherwise may relate to our product candidates. If we are shown to infringe, we could be enjoined from use or sale of the claimed invention if we are unable to prove that the patent is invalid. In addition, because patent applications can take many years to issue, there may be currently pending patent applications, unknown to us, which may later result in issued patents that our product candidates may infringe, or which may trigger an interference proceeding regarding one of our owned or licensed patents or applications. There could also be existing patents of which we are not aware that our product candidates may inadvertently infringe or which may become involved in an interference proceeding.

The biotechnology and pharmaceutical industries are characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. For so long as our product candidates are in clinical trials, we believe our clinical activities fall within the scope of the exemptions provided by 35 U.S.C. Section 271(e) in the United States, which exempts from patent infringement liability activities reasonably related to the development and submission of information to the FDA. As our clinical investigational drug product candidates progress toward commercialization, the possibility of a patent infringement claim against us increases. While we attempt to ensure that our active clinical investigational drugs and the methods we employ to manufacture them, as well as the methods for their use we intend to promote, do not infringe other parties' patents and other proprietary rights, we cannot be certain they do not, and competitors or other parties may assert that we infringe their proprietary rights in any event.

We may be exposed to future litigation based on claims that our product candidates, or the methods we employ to manufacture them, or the uses for which we intend to promote them, infringe the intellectual property rights of others. Our ability to manufacture and commercialize our product candidates may depend on our ability to demonstrate that the manufacturing processes we employ and the use of our product candidates do not infringe third-party patents. If third-party patents were found to cover our product candidates or their use or manufacture, we could be required to pay damages or be enjoined and therefore unable to commercialize our product candidates, unless we obtained a license. A license may not be available to us on acceptable terms, if at all.

Risks Related To Our Industry

If our competitors are able to develop and market products that are more effective, safer or more affordable than ours, or obtain marketing approval before we do, our commercial opportunities may be limited.

Competition in the biotechnology and pharmaceutical industries is intense and continues to increase, particularly in the area of cancer treatment. Most major pharmaceutical companies and many biotechnology companies are aggressively pursuing oncology development programs, including traditional therapies and therapies with novel mechanisms of action. Our cancer product candidates face competition from established biotechnology and pharmaceutical companies and from generic pharmaceutical manufacturers. In particular, if approved for commercial sale for pancreatic cancer, evofosfamide would compete with Gemzar®, marketed by Eli Lilly and Company; Tarceva®, marketed by Roche/Genentech and Astellas Oncology; Abraxane® marketed by Celgene; and FOLFIRINOX, which is a combination of generic products that are sold individually by many manufacturers. If approved for commercial sale for treatment-resistant non-small cell lung cancer, tarloxotinib could potentially compete with other EGFR-TKIs that are approved or currently in late-stage clinical development including AstraZeneca's Tagrosso®, Clovis Oncology's CO-1686, and Pfizer's dacomitinib. If approved for commercial sale for recurrent/metastatic head and neck cancer, tarloxotinib could potentially compete with Bristol Myers Squibb's Erbitux®, an approved agent, or other agents currently in late-stage clinical development including an EGFR TKI, Boehringer Ingelheim's afatinib and Bristol Myers Squibb's nivolumab and Merck's pembrolizumab, both PD-1 inhibitors. There may also be product candidates of which we are not aware at an earlier stage of development that may compete with evofosfamide, tarloxotinib or other product candidates we may develop. In short, each cancer indication for which we are or may be developing product candidates has a number of established medical therapies with which our candidates will compete. Our evofosfamide product candidate for targeting the tumor hypoxia is likely to be in highly competitive markets and may eventually compete with other therapies offered by companies who are developing or were developing drugs that target tumor hypoxia.

We also face potential competition from academic institutions, government agencies and private and public research institutions engaged in the discovery and development of drugs and therapies. Many of our competitors have significantly greater financial resources and expertise in research and development, preclinical testing, conducting clinical trials, obtaining regulatory approvals, manufacturing, sales and marketing than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established pharmaceutical companies.

Our competitors may succeed in developing products that are more effective, have fewer side effects and are safer or more affordable than our product candidates, which would render our product candidates less competitive or noncompetitive. These competitors also compete with us to recruit and retain qualified scientific and management personnel, establish clinical trial sites and patient registration for clinical trials, as well as to acquire technologies and technology licenses complementary to our programs or advantageous to our business. Moreover, competitors that are able to achieve patent protection obtain regulatory approvals and commence commercial sales of their products before we do, and competitors that have already done so, may enjoy a significant competitive advantage.

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

Healthcare providers, physicians and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we would market, sell and distribute our products. As a biotechnology company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. The laws that may affect our ability to operate include:

- Federal healthcare Anti-Kickback Statute will constrain our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities, by prohibiting, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;
- Federal civil and criminal false claims laws and civil monetary penalty laws impose criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;

- The Federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also created federal criminal laws that prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the Federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of these statutes or specific intent to violate them to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- The federal physician sunshine requirements under the Affordable Care Act requires manufacturers of drugs, devices, biologics and medical supplies to report annually to HHS information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations; and
- Analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures and state and foreign laws that govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

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

There is a substantial risk of product liability claims in our business. If we do not obtain sufficient liability insurance, a product liability claim could result in substantial liabilities.

Our business exposes us to significant potential product liability risks that are inherent in the development, manufacturing and marketing of human therapeutic products. Regardless of merit or eventual outcome, product liability claims may result in:

- delay or failure to complete our clinical trials;
- withdrawal of clinical trial participants;
- decreased demand for our product candidates;
- injury to our reputation;
- litigation costs;
- substantial monetary awards against us; and
- diversion of management or other resources from key aspects of our operations.

If we succeed in marketing products, product liability claims could result in an FDA investigation of the safety or efficacy of our products, our manufacturing processes and facilities or our marketing programs. An FDA investigation could also potentially lead to a recall of our products or more serious enforcement actions, or limitations on the indications, for which they may be used, or suspension or withdrawal of approval.

We have product liability insurance that covers our clinical trials up to a $5 million annual aggregate limit. We intend to expand our insurance coverage to include the sale of commercial products if marketing approval is obtained for our product candidates or any other compound that we may develop. However, insurance coverage is expensive and we may not be able to maintain insurance coverage at a reasonable cost or at all, and the insurance coverage that we obtain may not be adequate to cover potential claims or losses.

Even if we receive regulatory approval to market our product candidates, the market may not be receptiveto our product candidates upon their commercial introduction, which would negatively affect our ability to achieve profitability.

Our product candidates may not gain market acceptance among physicians, patients, healthcare payors and the medical community. The degree of market acceptance of any approved products will depend on a number of factors, including:

- the effectiveness of the product;
- the prevalence and severity of any side effects;
- potential advantages or disadvantages over alternative treatments;
- relative convenience and ease of administration;
- the strength of marketing and distribution support;
- the price of the product, both in absolute terms and relative to alternative treatments; and
- sufficient third-party coverage or reimbursement.

If our product candidates receive regulatory approval but do not achieve an adequate level of acceptance by physicians, patients, healthcare payors and the medical community, we may not generate product revenues sufficient to attain profitability.

If third-party payors do not cover or adequately reimburse patients for any of our product candidates, if approved for marketing, we may not be successful in selling them.

Our ability to commercialize any approved products successfully will depend in part on the extent to which coverage and reimbursement will be available from governmental and other third-party payors, both in the United States and in foreign markets. Even if we succeed in bringing one or more products to the market, the amount reimbursed for our products may be insufficient to allow us to compete effectively and could adversely affect our profitability. Coverage and reimbursement by a governmental and other third-party payor may depend upon a number of factors, including a governmental or other third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining coverage and reimbursement approval for a product from each third-party and governmental payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost effectiveness data for the use of our products to each payor. We may not be able to provide data sufficient to obtain coverage and reimbursement.

Eligibility for coverage does not imply that any drug product will be reimbursed in all cases or at a rate that allows us to make a profit. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not become permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on payments allowed for lower-cost drugs that are already reimbursed, may be incorporated into existing payments for other products or services and may reflect budgetary constraints and/or Medicare or Medicaid data used to calculate these rates. Net prices for products also may be reduced by mandatory discounts or rebates required by government health care programs or by any future relaxation of laws that restrict imports of certain medical products from countries where they may be sold at lower prices than in the United States.

The health care industry is experiencing a trend toward containing or reducing costs through various means, including lowering reimbursement rates, limiting therapeutic class coverage and negotiating reduced payment schedules with service providers for drug products. The Medicare Prescription Drug, Improvement and Modernization Act of 2003, or MMA, became law in November 2003 and created a broader prescription drug benefit for Medicare beneficiaries. The MMA also contains provisions intended to reduce or eliminate delays in the introduction of generic drug competition at the end of patent or nonpatent market exclusivity. The impact of the MMA on drug prices and new drug utilization over the next several years is unknown. The MMA also made adjustments to the physician fee schedule and the measure by which prescription drugs are presently paid, changing from Average Wholesale Price to Average Sales Price. The effects of these changes are unknown but may include decreased utilization of new medicines in physician prescribing patterns, and further pressure on drug company sponsors to provide discount programs and reimbursement support programs.

In March 2010, the United States Congress enacted the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively, the Affordable Care Act, which, among other things, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs and included the following changes to the coverage and payment for drug products under government health care programs:

- expanded manufacturers' rebate liability under the Medicaid Drug Rebate Program by increasing the minimum rebate for both branded and generic drugs and revising the definition of "average manufacturer price," or AMP, for calculating and reporting Medicaid drug rebates on outpatient prescription drug prices;
- addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- extended Medicaid drug rebates, previously due only on fee-for-service utilization, to Medicaid managed care utilization, and created an alternate rebate formula for new formulations of certain existing products that is intended to increase the amount of rebates due on those drugs;
- expanded the types of entities eligible for the 340B drug discount program that mandates discounts to certain hospitals, community centers and other qualifying providers; and
- established the Medicare Part D coverage gap discount program by requiring manufacturers to provide a 50% point-of-sale- discount off the negotiated price of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D.

Other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers up to 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2024 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, including hospitals and cancer treatment centers. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors, which may adversely affect our future profitability.

There have been, and we expect that there will continue to be, federal and state proposals to constrain expenditures for medical products and services, which may affect reimbursement levels for our future products or otherwise result in pricing pressures with respect to our future products. In this regard, we expect further federal and state proposals and healthcare reforms to continue to be proposed to limit the price of, or to curb pricing increases for, prescription drugs, including as a result of recent negative publicity regarding drug pricing strategies by pharmaceutical companies and pricing increases on pharmaceutical products generally, which could limit the prices that can be charged for our future products, which in turn may limit our or Merck KGaA's commercial opportunity and/or negatively impact revenues from sales of our future products. In addition, the Centers for Medicare & Medicaid Services frequently change product descriptors, coverage policies, product and service codes, payment methodologies and reimbursement values. Third-party payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates and may have sufficient market power to demand significant price reductions.

Foreign governments tend to impose strict price controls, which may adversely affect our potential future profitability.

In some foreign countries, particularly in the European Union and Japan, prescription drug pricing is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our potential future profitability will be negatively affected.

We may incur significant costs complying with environmental laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities.

Our research and development activities use biological and hazardous materials that are dangerous to human health and safety or the environment. We are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials and wastes resulting from these materials. We are also subject to regulation by the Occupational Safety and Health Administration, or OSHA, the California and federal environmental protection agencies and to regulation under the Toxic Substances Control Act. OSHA or the California or federal environmental protection agencies, may adopt regulations that may affect our research and development programs. We are unable to predict whether any agency will adopt any regulations that could have a material adverse effect on our operations. We have incurred, and will continue to incur, capital and operating expenditures and other costs in the ordinary course of our business in complying with these laws and regulations. Although we believe our safety procedures for handling and disposing of these materials comply with federal, state and local laws and regulations, we cannot entirely eliminate the risk of accidental injury or contamination from the use, storage, handling or disposal of hazardous materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could significantly exceed our insurance coverage.

Risks Related To Our Common Stock

If we fail to meet continued listing standards of The NASDAQ Stock Market LLC, our common stock may be delisted. Delisting could adversely affect the liquidity of our common stock and the market price of our common stock could decrease, and our ability to obtain sufficient additional capital to fund our operations and to continue as a going concern would be substantially impaired.

Our common stock is currently listed on The NASDAQ Capital Market. The NASDAQ Stock Market LLC, or NASDAQ, has minimum requirements that a company must meet in order to remain listed on The NASDAQ Capital Market. These requirements include maintaining a minimum closing bid price of $1.00 per share. On January 21, 2016, we received a letter from the staff, or Staff, of NASDAQ providing notification that, for the previous 30 consecutive business days, the closing bid price for our common stock was below the minimum $1.00 per share requirement for continued listing on The NASDAQ Capital Market, or the Bid Price Requirement. The notification had no immediate effect on the listing of our common stock. In accordance with NASDAQ listing rules, we were afforded 180 calendar days, or until July 19, 2016, to regain compliance with the Bid Price Requirement. If we do not regain compliance with the Bid Price Requirement by July 19, 2016, we may be eligible for an additional 180 calendar day compliance period. To qualify, we would need to meet, on the 180th day of the first compliance period, the continued listing requirement for market value of publicly held shares and all other applicable standards for initial listing on The NASDAQ Capital Market, with the exception of the Bid Price Requirement, and would need to provide written notice of our intention to cure the deficiency during the second compliance period by effecting a reverse stock split, if necessary. However, if it appears to the Staff that we will not be able to cure the deficiency, or if we are not eligible for a second compliance period, NASDAQ will notify us that our common stock will be subject to delisting. In the event of such a notification, we may appeal the Staff's determination to delist our common stock, but there can be no assurance the Staff would grant our request for continued listing. In addition, we may be unable to meet other applicable NASDAQ listing requirements, including maintaining minimum levels of stockholders' equity or market values of our common stock in which case, our common stock could be delisted notwithstanding our ability to demonstrate compliance with the Bid Price Requirement, whether through the implementation of a reverse stock split or otherwise. In this regard, on February 10, 2016, we received a letter from the Staff of NASDAQ providing notification that, for the previous 30 consecutive business days, the minimum market value of listed securities, or MLVS, for our common stock was below the $35 million minimum MVLS requirement for continued listing on The NASDAQ Capital Market, or the MVLS Requirement, and in accordance with NASDAQ listing rules, we were afforded 180 calendar days, or until August 8, 2016, to regain compliance with the MLVS Requirement. If we are unable to regain compliance with the MLVS Requirement or otherwise qualify for continued listing under an alternative listing standard, NASDAQ will notify us that our common stock will be subject to delisting. In the event of such a notification, we may appeal the Staff's determination to delist our common stock, but there can be no assurance the Staff would grant our request for continued listing.

If our common stock is delisted, we would expect our common stock to be traded in the over-the-counter market, which could adversely affect the liquidity of our common stock. Additionally, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- a reduced amount of news and analyst coverage for us;
- a decreased ability to issue additional securities and a concomitant substantial impairment in our ability to obtain sufficient additional capital to fund our operations and to continue as a going concern;
- reduced liquidity for our stockholders;

- potential loss of confidence by employees and potential future partners or collaborators; and
- loss of institutional investor interest and fewer business development opportunities.

The price of our common stock has been and may continue to be volatile.

The stock markets in general, the markets for biotechnology stocks and, in particular, the stock price of our common stock, have experienced extreme volatility. Further price declines in our common stock could result from general market and economic conditions and a variety of other factors, including:

- announcements regarding the development of our product candidates, including any delays in any potential future clinical trials, and investor perceptions of our ability to advance the development of evofosfamide and tarloxotinib;
- adverse results or delays in current and potential future clinical trials of evofosfamideand tarloxotinib;
- our ability to raise additional capital to advance the development ofevofosfamide and tarloxotinib and the terms of any related financing arrangements;
- announcements of FDA non-approval of our product candidates, or delays in the FDA, PMDA or other foreign regulatory agency review process;
- adverse actions taken by regulatory agencies with respect to our product candidates, clinical trials, manufacturing processes or sales and marketing activities;
- our ability to enter into new collaborative, licensing or other strategic arrangements with respect to our product candidates;
- the terms and timing of any future collaborative, licensing or other arrangements that we may establish;
- announcements of technological innovations, patents or new products by us or our competitors;
- regulatory developments in the United States, Japan and other foreign countries;
- any lawsuit involving us or our product candidates;
- our ability to comply with the minimum listing requirements of The NASDAQ Stock Market LLC;
- announcements concerning our competitors, or the biotechnology or pharmaceutical industries in general;
- developments concerning any strategic alliances or acquisitions we may enter into;
- actual or anticipated variations in our operating results;
- changes in recommendations by securities analysts or lack of analyst coverage;
- deviations in our operating results from the estimates of analysts;
- sales of our common stock by us, including under our sales agreement with Cowen;
- sales of our common stock by our executive officers, directors and significant stockholders or sales of substantial amounts of common stock; and
- additional losses of any of our key scientific or management personnel.

In the past, following periods of volatility in the market price of a particular company's securities, litigation has often been brought against that company. Any such lawsuit could consume resources and management time and attention, which could adversely affect our business.

If there are large sales of our common stock, the market price of our common stock could drop substantially. In addition, a significant number of shares of our common stock are subject to issuance upon exercise of outstanding options and warrants, which upon such exercise would result in dilution to our security holders.

If we or our existing stockholders sell a large number of shares of our common stock or the public market perceives that we or our existing stockholders might sell shares of our common stock, the market price of our common stock could decline significantly. As of December 31, 2015, we had 71,462,059 outstanding shares of common stock, substantially all of which may be sold in the public market without restriction, subject to any affiliate restrictions. On November 2, 2015, we entered into a sales agreement with Cowen and Company, LLC, or Cowen, under which we may sell shares of our common stock from time to time through Cowen, as our agent for the offer and sale of the shares, in an aggregate amount not to exceed $50 million. Though our ability to sell shares of common stock through Cowen under our sales agreement with Cowen is practically limited or precluded altogether due to our currently-depressed stock price, to the extent that we sell shares of our common stock pursuant to the sales agreement with Cowen in the future, our stockholders will experience dilution. In addition, a significant number of shares of our common stock are subject to issuance upon the exercise of outstanding options and warrants. On March 16, 2011, we issued warrants to purchase an aggregate of 5,725,227 shares of our common stock, at an exercise price of $2.46 per share. As of December 31, 2015, warrants to purchase 1,889,062 shares of common stock issued in March 2011 had been exercised. On February 18, 2015, we issued warrants to purchase an aggregate of 8,300,000 shares of our common stock, at an initial exercise price per share of $10.86, which exercise price was adjusted to $3.62 on January 21, 2016. In addition, as of December 31, 2015, there were 9,032,136 shares of our common stock issuable upon the exercise of outstanding options having a weighted-average exercise price of $3.77 per share. Although we cannot determine at this time how many of the currently outstanding options and warrants will ultimately be exercised, the options and warrants will likely be exercised only if the exercise price is below the market price of our common stock. To the extent that the options and warrants are exercised, additional shares of our common stock will be issued that will be eligible for resale in the public market, which will result in dilution to our security holders.

Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have a material adverse effect on our stock price.

Section 404 of the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the Securities and Exchange Commission, or SEC, require annual management assessments of the effectiveness of our internal control over financial reporting and a report by our independent registered public accounting firm attesting to, and reporting on, the effectiveness of our internal control over financial reporting. If we fail to maintain the adequacy of our internal control over financial reporting, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the SEC. If we cannot favorably assess, or our independent registered public accounting firm is unable to provide an unqualified attestation report on, the effectiveness of our internal control over financial reporting, investor confidence in the reliability of our financial reports may be adversely affected, which could have a material adverse effect on our stock price.

Our certificate of incorporation, our bylaws, our preferred shares rights agreement and Delaware law contain provisions that could discourage another company from acquiring us and may prevent attempts by our stockholders to replace or remove our current management.

Provisions of Delaware law, where we are incorporated, our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace or remove our board of directors. These provisions include:

- authorizing the issuance of "blank check" preferred stock without any need for action by stockholders;
- providing for a classified board of directors with staggered terms;
- requiring supermajority stockholder voting to effect certain amendments to our certificate of incorporation and bylaws;
- eliminating the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent; and
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

In addition, in August 2006, our board of directors adopted a preferred shares rights agreement, or the rights plan, the provisions of which could make it more difficult for a potential acquirer to consummate a transaction without the approval of our board of directors. The rights plan could also reduce the price that investors might be willing to pay for shares of our common stock and result in the market price being lower than it would be without the rights plan. In addition, the existence of the rights plan itself may deter a potential acquiror from acquiring us. As a result, either by operation of the rights plan or by its potential deterrent effect, mergers and acquisitions of us that our stockholders may consider in their best interests may not occur.

We have never paid dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have never declared or paid cash dividends on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We have a noncancelable facility sublease agreement for 31,104 square feet of laboratory space and office space located in South San Francisco, California, which serves as our corporate headquarters. The lease began on October 1, 2011 and will expire on April 30, 2017. In November 2013, we entered into a noncancelable facility lease agreement for 7,934 square feet for additional office space located in South San Francisco, California. The lease began on December 1, 2013 and would have expired on December 31, 2016. In June 2015, we terminated the lease for the additional office space. We believe our facilities are suitable and adequate for our current needs and that adequate facilities will be available to support our needs following termination of our existing leases.

ITEM 3. LEGAL PROCEEDINGS

We are not a party to any material legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock has been traded on The NASDAQ Capital Market under the symbol "THLD". Prior to that time there was no public market for our stock. The following table lists quarterly information on the price range of our common stock based on the high and low reported sale prices for our common stock as reported by the NASDAQ Capital Market for the periods indicated below.

	High	Low
Year Ended December 31, 2015:		
First Quarter	$ 4.69	$ 3.22
Second Quarter	$ 4.62	$ 3.29
Third Quarter	$ 5.28	$ 3.54
Fourth Quarter	$ 4.44	$ 0.45
Year Ended December 31, 2014:		
First Quarter	$ 5.93	$ 4.27
Second Quarter	$ 4.88	$ 3.51
Third Quarter	$ 5.41	$ 3.60
Fourth Quarter	$ 3.65	$ 2.58

There were approximately 75 holders of record of our common stock as of February 29, 2016. On February 29, 2016, the last reported sales price per share of our common stock was $0.23 per share.

Dividends

We have never declared or paid any dividends on our capital stock. We currently intend to retain any future earnings to fund the development and expansion of our business, and therefore we do not anticipate paying cash dividends on our common stock in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in future financing instruments and other factors our board of directors deems relevant.

Unregistered Sales of Equity Securities

None.

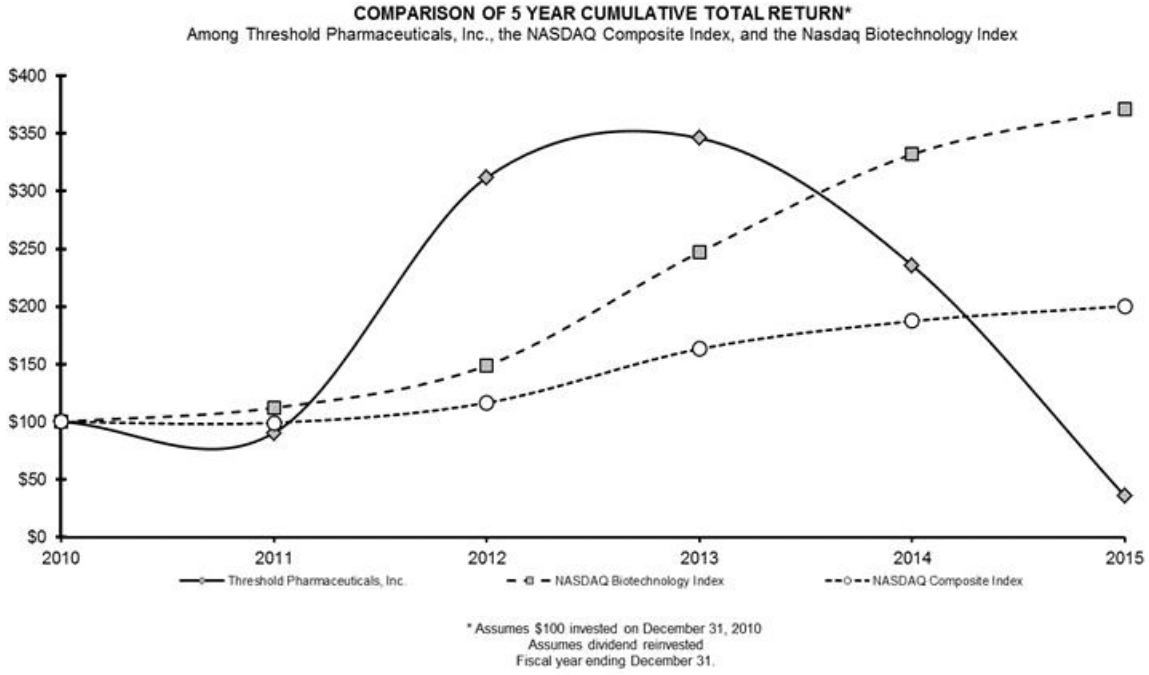
Repurchases of Equity Securities

None.

Stock Performance Graph

The following graph shows the total stockholder return of an investment of $100 in cash on December 31, 2010 for (i) our common stock; (ii) the NASDAQ Composite Index; and (iii) the NASDAQ Biotechnology Index through December 31, 2015. Pursuant to applicable SEC rules, all values assume reinvestment of the full amount of all dividends; however no dividends have been declared on our common stock to date. The stockholder return shown in the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.

This section is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.



ITEM 6. SELECTED FINANCIAL DATA

The following tables reflect selected consolidated summary financial data for each of the last five fiscal years and are derived from our audited financial statements. This data should be read in conjunction with Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Part II, Item 8, "Financial Statements and Supplementary Data", appearing elsewhere in this Annual Report on Form 10-K.

	Years Ended December 31,				
	2015	2014	2013	2012	2011
	(In thousands, except per share data)				
Revenue	$ 76,915	$ 14,722	$ 12,495	$ 5,867	$ 62
Operating expenses:					
Research and development (1)	40,271	35,832	29,334	18,786	24,388
General and administrative (1)	9,716	10,141	9,185	7,080	5,710
Total operating expenses	49,987	45,973	38,519	25,866	30,098
Income (loss) from operations	26,928	(31,251)	(26,024)	(19,999)	(30,036)
Interest income (expense), net	125	121	136	80	25
Other income (expense), net	16,769	9,344	(2,325)	(51,216)	4,358
Income (loss) before provision for income taxes	43,822	(21,786)	(28,213)	(71,135)	(25,653)
Provision (benefit) for income taxes	—	(202)	202	—	—
Net income (loss)	$ 43,822	$ (21,584)	$ (28,415)	$ (71,135)	$ (25,653)
Net income (loss) per common share:					
Basic	$ 0.62	$ (0.36)	$ (0.49)	$ (1.31)	$ (0.56)
Diluted	$ 0.54	$ (0.49)	$ (0.49)	$ (1.31)	$ (0.56)
Weighted average number of shares used in net loss per common share calculations:					
Basic	70,242	60,335	57,832	54,219	45,900
Diluted	73,483	63,386	57,832	54,219	45,900
(1) Includes employee and non-employee non-cash stock-based compensation of:					
Research and development	$ 4,090	$ 3,123	$ 2,562	$ 1,521	$ 471
General and administrative	$ 2,711	$ 2,365	$ 2,360	$ 1,489	$ 568

	As of December 31,				
	2015	2014	2013	2012	2011
	(In thousands)				
Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$ 48,680	$ 58,600	$ 82,033	$ 70,848	$ 20,290
Working capital	42,342	40,706	58,993	70,199	11,953
Total assets	53,669	68,396	104,118	89,521	22,436
Total liabilities	12,823	92,372	127,593	103,374	17,953
Total stockholders' equity (deficit)	40,846	(23,976)	(23,475)	(13,853)	4,483

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

The following discussion and analysis should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties, including those set forth under the heading "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Our actual results and the timing of selected events discussed below could differ materially from those expressed in, or implied by, these forward-looking statements.

Overview

We are a clinical-stage biopharmaceutical company using our expertise in the tumor microenvironment to discover and develop therapeutic and diagnostic agents that selectively target tumor cells for the treatment of patients living with cancer. We are developing two therapeutic product candidates based on hypoxia-activated prodrug technology: evofosfamide and tarloxotinib. In December 2015, we announced topline results from two pivotal Phase 3 clinical trials of evofosfamide: TH-CR-406 conducted by Threshold in patients with soft tissue sarcoma and MAESTRO conducted by Merck KGaA, Darmstadt, Germany, or Merck KGaA, in patients with advanced pancreatic cancer. Based on our analysis of the TH-CR-406 study and Merck KGaA's analysis of the MAESTRO study, we reported that neither trial met its primary endpoint of demonstrating a statistically significant improvement in overall survival As a result, and following Merck KGaA's and our decision to discontinue joint development of evofosfamide under our former collaboration with Merck KGaA, in December 2015 we adopted a plan to reduce our operating expenses. The plan included a reduction of approximately 40 full-time employees in both research and development and general and administrative areas. In addition, we have discontinued enrollment in all company-sponsored clinical trials of evofosfamide as we conduct our own analyses of the data from the MAESTRO trial and evaluate potential next steps for the development of evofosfamide and tarloxotinib. As a result of the staffing reduction, we incurred severance benefits of approximately $2.5 million during the quarter ended December 31, 2015, which included approximately $0.2 million of non-cash stock compensation expense related to the extension of post-termination exercise period for the outstanding vested stock options for the affected employees. The payout of the accrued severance benefits was completed in the first quarter of 2016.

In January 2016, we announced that a sponsor-initiated interim futility analysis of the randomized, controlled Phase 2 trial (TH-CR-415) of evofosfamide, (or "the 415 trial"), was conducted by an independent Data Safety Monitoring Board (", or IDSMB"). IDSMB concluded that the trial was unlikely to reach its primary endpoint of improving overall survival with statistical significance. While evofosfamide plus pemetrexed demonstrated statistically significant improvement in progression-free survival (PFS) associated with a reduction in the risk of progression or death by approximately 30%, enrollment in the 415 trial was stopped. Three investigator-sponsored trials of evofosfamide continue to enroll patients. In January 2016 at the American Society of Clinical Oncology 2016 Gastrointestinal Cancers Symposium (ASCO GI), Merck KGaA's analyses of the results from the Phase 3 MAESTRO trial were presented. While the primary efficacy endpoint of overall survival narrowly missed statistical significance, efficacy endpoints of progression-free survival and confirmed overall response rates demonstrated significant improvements for patients treated with the combination of evofosfamide and gemcitabine (the "treatment arm") compared to gemcitabine plus placebo (the "control arm"). Of particular note, a meaningful improvement in overall survival was reported for a subgroup of 123 Asian patients (enrolled at Japanese and South Korean sites) in which the risk of death was reduced by 42 percent for patients on the treatment arm compared to patients on the control arm. The hazard ratio, (or "HR"), for this subgroup was 0.58 (95% confidence interval (or "CI": 0.36 – 0.93). In particular and based upon Merck's MAESTRO data, the 116 patients from Japan from the treatment arm had a median overall survival of 13.6 months versus 9.1 months for those patients on the control arm with significant improvements in progression free survival, objective response rates, and reductions in the pancreatic cancer biomarker, CA19-9. No new safety findings were identified in the MAESTRO study and the safety profile was consistent with that previously reported in other studies of evofosfamide plus gemcitabine. In March 2016, we and Merck KGaA agreed to terminate our former collaboration with Merck KGaA, and all rights to evofosfamide were returned to us. We are currently conducting additional analyses of data from the MAESTRO trial in pancreatic cancer. Pending the results of our analyses, we intend to discuss potential registration pathways with health regulatory authorities.

To date, evofosfamide has been studied in more than 1600 patients with cancer and has demonstrated anti-tumor activity as a monotherapy and in combination with other chemotherapeutics or targeted therapies across multiple types of solid tumors and in some hematological malignancies. The safety profile of evofosfamide has been consistent with manageable side-effects. We have discontinued enrollment in all company-sponsored trials of evofosfamide as we conduct our own analyses on the MAESTRO data and evaluate next steps. Three investigator-sponsored trials of evofosfamide continue to enroll patients.

Our second product candidate, tarloxotinib, is a prodrug designed to selectively release a covalent (irreversible) EGFR tyrosine kinase inhibitor under hypoxic conditions. Aberrant EGFR signaling is implicated in the growth and spread of certain tumor types. Accordingly, tarloxotinib has the potential to effectively shut down aberrant EGFR signaling in a tumor-selective manner, thus potentially avoiding or reducing the systemic side effects associated with currently available EGFR tyrosine kinase inhibitors. Tarloxotinib is currently being evaluated in two Phase 2 proof-of-concept trials: one for the treatment of patients with mutant EGFR-positive, T790M-negative advanced non-small cell lung cancer progressing on an EGFR tyrosine kinase inhibitor, and the other for patients with recurrent or metastatic squamous cell carcinomas of the head and neck or skin. Threshold licensed exclusive worldwide rights to tarloxotinib from Auckland Uniservices Ltd in September 2014.

We were incorporated in October 2001. We have devoted substantially all of our resources to research and development of our product candidates. We have not generated any revenue from the commercial sales of our product candidates, and since inception we have funded our operations through the private placement and public offering of equity securities and through payments received under our former collaboration with Merck KGaA. As of December 31, 2015 and 2014, we had cash, cash equivalents and marketable securities of $48.7 million and $58.6 million, respectively.

Subject to our ability to obtain additional funding and to otherwise advance the development of our product candidates, we expect to devote substantial resources to research and development in future periods as we potentially start additional clinical trials on our own or with a potential future partner or collaborator. Research and development expenses are expected to decrease in 2016 compared to 2015 primarily as a result of Merck KGaA's and our decision to cease further joint development of evofosfamide and our decision to cease further enrollment in all Threshold-sponsored clinical trials of evofosfamide and, to a lesser extent, the impact of workforce reduction implemented in December 2015.

We believe that our cash, cash equivalents and marketable securities will be sufficient to fund our projected operating requirements for at least the next twelve months based upon current operating plans and spending assumptions. However, we will need to raise additional capital to advance the clinical development of evofosfamide and tarloxotinib, whether through new collaborative or partnering arrangements or otherwise, and to in-license or otherwise acquire and develop additional product candidates or programs. In particular, our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development, particularly since we are no longer eligible to receive any further milestone payments or other funding from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA. If we are unable to secure additional funding on a timely basis or on terms favorable to us, we may be required to cease or reduce certain development projects, to conduct additional workforce reductions, to sell some or all of our technology or assets or to merge all or a portion of our business with another entity. Insufficient funds may require us to delay, scale back, or eliminate some or all of our activities, and if we are unable to obtain additional funding, there is uncertainty regarding our continued existence.

Revenue

We have not generated any revenue from the commercial sales of our product candidates since our inception and do not expect to generate any revenue from the commercial sales of our product candidates in the near term. We also currently have no ongoing collaborations for the development and commercialization of our product candidates and no source of revenue. We recognized revenue of $76.9 million, $14.7 million and $12.5 million during the years ended December 31, 2015, 2014 and 2013, respectively, from the amortization of the $110 million in upfront and milestone payments earned in 2012 and 2013 from our former collaboration with Merck KGaA. We were amortizing the upfront and milestone payments over the estimated period of performance (product development period) which we estimated to end on March 31, 2020, for the nine months ended September 30, 2015 and years ended December 31, 2014 and 2013. As a result of our and Merck KGaA's decision to cease further joint development of evofosfamide in December 2015, we immediately recognized $65.9 million of the remaining deferred revenue into revenue during the quarter ended December 31, 2015. In addition, as a result of the subsequent termination of the collaboration with Merck KGaA in March 2016, we are no longer eligible to receive any further milestone payments or other funding from the collaboration.

Research and Development Expenses

Research and development expenses consist primarily of costs of conducting clinical trials, salaries and related costs for personnel including non-cash stock-based compensation, costs of clinical materials, costs for research projects and preclinical studies, costs related to regulatory filings, and facility costs. Contracting and consulting expenses are a significant component of our research and development expenses as we rely on consultants and contractors in many of these areas. We recognize expenses as they are incurred. Our accruals for expenses associated with preclinical and clinical studies and contracts associated with clinical materials are based upon the terms of the service contracts, the amount of services provided and the status of the activities.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related costs for our personnel in the executive, public relations, finance, patent, corporate development and other administrative functions, including non-cash stock-based compensation, as well as consulting costs for functions for which we either do not staff or only partially staff, including market research and recruiting. Other costs include professional fees for legal and accounting services, insurance and facility costs.

Stock-Based Compensation

We recognize stock-based compensation in accordance with the fair value provisions of Accounting Standard Codification ("ASC") 718,*"Compensation—Stock Compensation."* Refer to the discussion of accounting treatment of stock based compensation below under "***Critical Accounting Policies***."

Fair Value of Warrants

ASC 815 *"Derivatives and Hedging"* requires that stock warrants with certain terms need to be accounted for as a liability with changes to their fair value recognized in the consolidated statements of operations under Other income (expense). Refer to the discussion of accounting treatment of stock based compensation below under "***Critical Accounting Policies***."

Results of Operations for the Years Ended December 31, 2015, 2014 and 2013

Revenue

We recognized $76.9 million, $14.7 million and $12.5 million in revenue for the years ended December 31, 2015, 2014 and 2013, respectively, from the amortization of the aggregate of $110 million in upfront and milestone payments earned in 2013 and 2012 from our former collaboration with Merck KGaA. We were amortizing the upfront payment and milestones earned over the period of performance (product development period) which we estimated to end on March 31, 2020, for the nine months ended September 30, 2015 and years ended December 31, 2014 and 2013. As a result of Merck KGaA's and our decision to cease further joint development of evofosfamide in December 2015, we immediately recognized $65.9 million of the remaining deferred revenue into revenue during the quarter ended December 31, 2015. In addition, as result of the subsequent termination of our collaboration with Merck KGaA in March 2016, we are no longer eligible to receive any further milestone payments or other funding from the collaboration.

We expect revenue to significantly decline in 2016 compared to 2015 due to the termination of our collaboration with Merck KGaA and the resulting accelerated recognition of all deferred revenue related to the former collaboration in 2015.

Research and Development

Research and development expenses were $40.3 million for the year ended December 31, 2015, compared to $35.8 million for the year ended December 31, 2014 and $29.3 million for the year ended December 31, 2013. The $4.5 million increase in 2015 compared to 2014, net of reimbursement for Merck KGaA's 70% share of total development expenses for evofosfamide, was due primarily to a $2.2 million increase in evofosfamide clinical development expenses, a $2.7 million increase in employee related expenses, including a $1.0 million increase in non-cash stock based compensation expense. The increase in payroll expenses was also due to severance expense of $2.2 million related to the reduction in workforce of 34 employees in clinical development and discovery research in December 2015. Partially offsetting these increases was $0.4 million decrease in consulting expenses. The $6.5 million increase in 2014 compared to 2013 was due primarily to a $9.4 million increase in clinical development expenses, a $2.1 million increase in employee-related expenses and a $0.6 million increase in non-cash stock based compensation, partially offset by a $5.6 million increase in reimbursement for Merck KGaA's 70% share of total development expenses for evofosfamide.

During the years ended December 31, 2015, 2014 and 2013, we were engaged in two primary research and development programs: the development of evofosfamide, which was the subject of two pivotal Phase 3 clinical trials and multiple Phase 2 and Phase 1 clinical trials; and our discovery research program aimed at identifying new drug candidates. During the years ended December 31, 2015 and 2014, we were also engaged in the clinical development of our recently-licensed product candidate, tarloxotinib. Research and development expenses consist primarily of costs of conducting clinical trials, salaries and related costs for personnel including non-cash stock-based compensation, costs of clinical materials, costs for research projects and preclinical studies, costs related to regulatory filings, and facility costs. Contracting and consulting expenses are a significant component of our research and development expenses as we rely on consultants and contractors in many of these areas. The following table summarizes our research and development expenses (net of reimbursement for Merck KGaA's 70% share of total development expenses in the case of evofosfamide) attributable to each of our research and development programs for each period presented:

	Years ended December 31,		
Research and Development Expenses by Project (in thousands):	**2015**	**2014**	**2013**
Evofosfamide	$ 30,111	$ 30,094	$ 24,675
Tarloxotinib	4,945	258	—
Discovery research	5,215	5,480	4,659
Total research and development expenses	$ 40,271	$ 35,832	$ 29,334

Research and development expenses associated with evofosfamide for 2015 were $30.1 million net of the reimbursement for Merck KGaA's 70% share of total development expenses for evofosfamide compared to $30.1 million net of the reimbursement for Merck KGaA's 70% share of total development expenses for evofosfamide for 2014, and $24.7 million for 2013. Research and development expenses for evofosfamide were flat in 2015 compared to 2014, net of reimbursement for Merck KGaA's 70% share of total development expenses for evofosfamide, due to a $1.2 million increase in employee related expenses, including a $0.6 million increase in non-cash stock based compensation, which was offset by a $0.7 million decrease in clinical development expenses and a $0.6 million decrease in consulting expenses. The increase of $5.4 million in expenses in 2014 compared to 2013 was due primarily to a $9.3 million increase in clinical development expenses, a $1.4 million increase in employee-related expenses and a $0.4 million in non-cash stock based compensation partially offset by a $5.6 million increase in reimbursement for Merck KGaA's 70% share of total development expenses for evofosfamide and a $0.1 million decrease in consulting expenses. As a result of the termination of our collaboration with Merck KGaA in March 2016, we are no longer eligible to receive any further milestone payments or other funding from the collaboration, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA.

Research and developments expenses associated with tarloxotinib, which we licensed rights to September 2014, were $4.9 million in 2015 compared to $0.3 million in 2014. The increase of $4.6 million in 2015 compared to 2014 was due to the initiation of two Phase 2 proof-of-concept clinical trials of tarloxotinib in 2015. Discovery research and development expenses were $5.2 million for 2015, $5.5 million for 2014 and $4.7 million for 2013. We continued to increase our resources and efforts towards discovering and developing new drug candidates from our hypoxia activated prodrug platform in 2015 and 2014. However with the reduction in workforce enacted in December of 2015 pursuant to which we eliminated our in-house discovery research activities, we expect a substantial decrease in our discovery research expense activities for 2016.

The largest component of our total operating expenses has historically been our ongoing investment in our research and development activities, primarily with respect to the development of evofosfamide. Subject to our ability to obtain additional funding and to otherwise advance the development of our product candidates, we expect to devote substantial resources to research and development in future periods as we potentially start new clinical trials on our own or with a potential future partner or collaborator. Research and development expenses are expected to decrease in 2016 compared to 2015 due primarily to our and Merck KGaA's decision to cease further joint development of evofosfamide in December 2015 and our subsequent decision to cease enrollment in all Threshold-sponsored clinical trials of evofosfamide. In addition, the reduction in workforce implemented in December 2015 will also result in a decrease in employee-related expenses.

The process of conducting the clinical research necessary to obtain FDA and foreign regulatory approvals is costly, uncertain and time consuming. We consider the active management of our research and development programs to be critical to our long-term success. The actual probability of success for evofosfamide, tarloxotinib and potential future clinical product candidates may be impacted by a variety of factors, including, among others, the quality of the product candidate, early clinical data, investment in the program and the availability of adequate funding, competition, manufacturing capability and commercial viability. Furthermore, our strategydepends upon our ability to enter into potential new partnering or collaborative arrangements with third parties to assist in the development of our product candidates, including evofosfamide, or to otherwise obtain sufficient additional funding to permit such development. In the event we enter into partnering or collaborative arrangements for our product candidates, the preclinical development or clinical trial process for a product candidate and the estimated completion date may largely be under the control of that third party and not under our control. We cannot forecast with any degree of certainty which of our product candidates will be subject to future collaborations or how such arrangements would affect our development plans or capital requirements. In addition, the length of time required for clinical development of a particular product candidate and our development costs for that product candidate may be impacted by the scope and timing of enrollment in clinical trials for the product candidate, unanticipated additional clinical trials that may be required, future decisions to develop a product candidate for subsequent indications, and whether in the future we decide to pursue development of the product candidate with a collaborator or independently. For example, evofosfamide may have the potential to be approved for multiple indications, and we do not yet know how many of those indications we and a potential collaborator will pursue. In this regard, the decision to pursue regulatory approval for subsequent indications will depend on several variables outside of our control, including the strength of the data generated in our prior and ongoing clinical studies and the willingness ofpotential collaborators to jointly fund such additional work. Furthermore, the scope and number of clinical studies required to obtain regulatory approval for each pursued indication is subject to the input of the applicable regulatory authorities, and we have not yet sought such input for all potential indications that we may elect to pursue, and even after having given such input applicable regulatory authorities may subsequently require additional clinical studies prior to granting regulatory approval based on new data generated by us or other companies, or for other reasons outside of our control. In addition, our development of tarloxotinib is at a very early stage and it is possible that tarloxotinib may not be found to be safe or effective in our two ongoing Phase 2 proof-of- concept clinical trials or in any other studies that we may conduct, and we may otherwise fail to realize the anticipated benefits of our licensing of this product candidate.

The risks and uncertainties associated with our research and development projects are discussed more fully in Item 1A—Risk Factors. As a result of the risks and uncertainties discussed in Item 1A—Risk Factors and above, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects, anticipated completion dates or when and to what extent we will receive cash inflows from the commercialization and sale of a product candidate, including evofosfamide. To date, we have not commercialized any of our product candidates and in fact may never do so.

General and Administrative

General and administrative expenses were $9.7 million for 2015, compared to $10.1 million for 2014 and $9.2 million for 2013. The $0.4 million decrease in 2015 compared to 2014 was primarily related to a decrease in consulting expenses. The $0.9 million increase in 2014 compared to 2013 reflects a $0.8 million in higher consulting expenses and $0.1 million in higher staffing and facilities expenses. We currently expect our general and administrative expenses to decrease in 2016 compared to 2015 due to the termination of the collaboration with Merck KGaA and to a lesser extent due to the reduction in workforce in December 2015.

Interest Income (Expense), Net

Interest income (expense) net for 2015 was $0.1 million of interest income compared to $0.1 million of net interest income for 2014 and $0.1 of net interest income for 2013.

Other Income (Expense)

Other income (expense) for 2015 was non-cash income of $16.8 million compared to non-cash income of $9.3 million for 2014 and non-cash expense of $2.3 million for 2013. The non-cash income for 2015 compared to 2014 and 2014 compared to the non-cash expense for 2013 was due to a decrease in the fair value of outstanding warrants to purchase common stock and warrants exercised during both periods as result of a decrease in the underlying stock price.

Liquidity and Capital Resources

We have not generated and do not expect to generate revenue from sales of our product candidates in the near term.We also currently have no ongoing collaborations for the development and commercialization of our product candidates and no source of revenue. Since our inception, we have funded our operations primarily through private placements and public offerings of equity securities and through payments received under our former collaboration with Merck KGaA. To date we have received upfront and milestone payments of $110 million under our former collaboration with Merck KGaA. As a result of the termination of our collaboration with Merck KGaA in March 2016, we are no longer eligible to receive any further milestone payments from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA.

In February 2015, we completed an underwritten public offering of 8,300,000 shares of our common stock and accompanying warrants to purchase up to 8,300,000 shares of our common stock. Net proceeds from the sale of common stock and accompanying warrants, excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $28.1 million after deducting the underwriting discount and offering expenses payable by us.

The warrants issued in the February 2015 offering carried an initial exercise price of $10.86 per share and are exercisable through the date that is five years from the issuance date. On January 21, 2016, pursuant to the terms of the warrants the warrant exercise price for all warrants was adjusted to $3.62. The adjusted exercise price of the warrants is also further subject to adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

The warrants must be exercised for cash, except that if we fail to maintain an effective registration statement covering the exercise of the warrants, the warrants may be exercised on a net, or cashless basis. In addition, subject to the satisfaction of certain conditions set forth in the warrants, at our option, we have the right to force the holders of the warrants to exercise their warrants in full if the volume-weighted average price of our common stock for any 20 consecutive trading-day period beginning after April 20, 2016 exceeds $18.00 per share.

During the year ended December 31, 2014, we received approximately $4.8 million from the exercise of warrants to purchase approximately 2.3 million shares of common stock. We had cash, cash equivalents and marketable securities of $48.7 million and $58.6 million at December 31, 2015 and December 31, 2014, respectively, available to fund operations.

Net cash used in operating activities for December 31, 2015 and 2014 was $38 million and $27.7 million, respectively, compared to net cash provided by operating activities for the years ended December 31, 2013 of $10.2 million. The increase of $10.3 million in cash used in operations was primarily attributable to the $12.5 million of milestone payment received from the Merck KGaA collaboration in 2014.The $37.9 million increase in net cash used in operating activities in 2014 compared to 2013 was due to a $30 million decrease in milestone payments from the Merck KGaA collaboration in 2014 compared to 2013. In addition, operating cash payments increased by $7.9 million in 2014 compared to 2013.

Net cash provided by investing activities during the year ended December 31, 2015 was $10.3 million, primarily due to sales and maturities of marketable securities of $67.2 million, partially offset by purchases of investments of $56.8 million. Net cash provided by investing activities during the year ended December 31, 2014 was $23.3 million, primarily due to sales and maturities of marketable securities of $68.5 million, partially offset by purchases of investments of $44.9 million. Net cash used in investing activities for the year ended December 31, 2013 was $16.3 million due primarily to purchases of marketable securities of $102 million, offset by proceeds from sales and maturities of investments of $85.8 million.

Net cash provided by financing activities for the year ended December 31, 2015 was $28.9 million and was primarily due to the $28.1 million net proceeds received from the completion of our underwritten public offering in February 2015. Net cash provided by financing activities for the year ended December 31, 2014 was $5.5 million and was primarily due to the approximately $4.8 million proceeds from the exercise of warrants to purchase shares of common stock during 2014. Net cash provided by financing activities for the year ended December 31, 2013 was $2.4 million and was primarily due to the approximately $1.9 million proceeds from the exercise of warrants to purchase shares of common stock during 2013.

We believe that our cash, cash equivalents and marketable securities will be sufficient to fund our projected operating requirements for at least the next 12 months based upon current operating plans and spending assumptions. However, we will need to raise additional capital to advance the clinical development of evofosfamide and tarloxotinib, whether through new collaborative or partnering arrangements or otherwise, and to in-license or otherwise acquire and develop additional product candidates or programs. In particular, our ability to advance the clinical development of evofosfamide is dependent upon our ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development, particularly since we are no longer eligible to receive any further milestone payments or other funding from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA.

While we have been able to fund our operations to date, we currently have no ongoing collaborations for the development and commercialization of our product candidates and no source of revenue, nor do we expect to generate revenue for the foreseeable future. We also do not have any commitments for future external funding. Until we can generate a sufficient amount of product revenue, which we may never do, we expect to finance future cash needs through a variety of sources, including:

- the public equity market;
- private equity financing;
- collaborative arrangements;
- licensing arrangements; and/or
- public or private debt.

Our ability to raise additional funds and the terms upon which we are able to raise such funds have been severely harmed by the negative results reported from our two pivotal Phase 3 clinical trials of evofosfamide, and may in the future be adversely impacted by the uncertainty regarding the prospects for future development ofevofosfamide and our ability to advance the development of evofosfamide and tarloxotinib or otherwise realize any return on our investments in evofosfamide and tarloxotinib, if at all. Our ability to raise additional funds and the terms upon which we are able to raise such funds may also be adversely affected by the uncertainties regarding our financial condition, the sufficiency of our capital resources, our ability to maintain the listing of our common stock on The NASDAQ Capital Market and recent and potential future management turnover. As a result of these and other factors, we cannot be certain that sufficient funds will be available to us or on satisfactory terms, if at all.To the extent we raise additional funds by issuing equity securities, our stockholders may experience significant dilution, particularly given our currently depressed stock price, and debt financing, if available, may involve restrictive covenants. If adequate funds are not available, we may be required to significantly reduce or refocus our operations or to obtain funds through arrangements that may require us to relinquish rights to our product candidates, technologies or potential markets, any of which could result in our stockholders having little or no continuing interest in our evofosfamide or tarloxotinib programs as stockholders or otherwise, or which could delay or require that we curtail or eliminate some or all of our development programs or otherwise have a material adverse effect on our business, financial condition and results of operations. In addition, we may have to delay, reduce the scope of or eliminate some of our development, which could delay the time to market for any of our product candidates, if adequate funds are not available.

On January 21, 2016, we received a letter from the staff, or Staff, of NASDAQ providing notification that, for the previous 30 consecutive business days, the closing bid price for our common stock was below the minimum $1.00 per share requirement for continued listing on The NASDAQ Capital Market, or the Bid Price Requirement. The notification had no immediate effect on the listing of our common stock. In accordance with NASDAQ listing rules, we were afforded 180 calendar days, or until July 19, 2016, to regain compliance with the Bid Price Requirement. If we do not regain compliance with the Bid Price Requirement by July 19, 2016, we may be eligible for an additional 180 calendar day compliance period. To qualify, we would need to meet, on the 180th day of the first compliance period, the continued listing requirement for market value of publicly held shares and all other applicable standards for initial listing on The NASDAQ Capital Market, with the exception of the Bid Price Requirement, and would need to provide written notice of our intention to cure the deficiency during the second compliance period by effecting a reverse stock split, if necessary. However, if it appears to the Staff that we will not be able to cure the deficiency, or if we are not eligible for a second compliance period, NASDAQ will notify us that our common stock will be subject to delisting. In the event of such a notification, we may appeal the Staff's determination to delist our common stock, but there can be no assurance the Staff would grant our request for continued listing. In addition, we may be unable to meet other applicable NASDAQ listing requirements, including maintaining minimum levels of stockholders' equity or market values of our common stock in which case, our common stock could be delisted notwithstanding our ability to demonstrate compliance with the Bid Price Requirement, whether through the implementation of a reverse stock split or otherwise. In this regard, on February 10, 2016, we received a letter from the Staff of NASDAQ providing notification that, for the previous 30 consecutive business days, the minimum market value of listed securities, or MLVS, for our common stock was below the $35 million minimum MVLS requirement for continued listing on The NASDAQ Capital Market, or the MVLS Requirement, and in accordance with NASDAQ listing rules, we were afforded 180 calendar days, or until August 8, 2016, to regain compliance with the MLVS Requirement. If we are unable to regain compliance with the MLVS Requirement or otherwise qualify for continued listing under an alternative listing standard, NASDAQ will notify us that our common stock will be subject to delisting. For example, while we currently satisfy the minimum level of stockholders' equity requirement, we may not continue to do so. In the event of such a notification, we may appeal the Staff's determination to delist our common stock, but there can be no assurance the Staff would grant our request for continued listing. If our common stock is delisted, this would, among other things, substantially impair our ability to raise additional funds to fund our operations and to advance the development of evofosfamide and tarloxotinib, and could result in the loss of institutional investor interest and fewer development opportunities for us.

If we are unable to secure additional funding on a timely basis or on terms favorable to us, we may be required to cease or reduce certain research and development projects, to conduct additional workforce reductions, to sell some or all of our technology or assets or to merge all or a portion of our business with another entity. Insufficient funds may require us to delay, scale back, or eliminate some or all of our activities, and if we are unable to obtain additional funding, there is uncertainty regarding our continued existence.

Obligations and Commitments

We lease certain of our facilities under noncancelable leases, which qualify for operating lease accounting treatment under ASC 840, *"Leases,"* and, as such, these facilities are not included on our consolidated balance sheets. We entered into a noncancelable facility sublease agreement for 28,650 square feet of laboratory space and office space located in South San Francisco, California, which serves as our corporate headquarters. The lease began on October 1, 2011 and will expire on April 30, 2017. The aggregate rent for the term of the lease is approximately $3.4 million. In addition, the lease requires us to pay certain taxes, assessments, fees and other costs associated with the premises, in amounts yet to be determined. In connection with the execution of the lease we paid a security deposit of approximately $60,000. In November 2013, we entered into a noncancelable facility lease agreement for 7,934 square feet of additional office space located in South San Francisco, California. The lease began on December 1, 2013 and would have expired on December 31, 2016. The aggregate rent for the original term of the lease was approximately $0.7 million. In June 2015, we terminated the lease for the additional office space.

Our major outstanding contractual obligations consist of amounts due under our operating lease agreements and purchase commitments under contract research, development and clinical supply agreements. Contractual obligations and related scheduled payments as of December 31, 2015 are as follows (in thousands):

	Total	Less than one year	One to three years	Four to five years	After five years
Facilities leases	$ 1,028	$ 768	$ 260	$ —	$ —
Purchase commitments	866	866	—	—	—
Total	$ 1,894	$ 1,634	$ 260	$ —	$ —

We have not included milestone or royalty payments or other contractual payment obligations in the table above if the amount and timing of such obligations are unknown or uncertain.

"At-the-Market" Sales Agreements

On October 29, 2010, we entered into an at market issuance sales agreement, as amended, or the prior MLV sales agreement, with MLV & Co. LLC, or MLV, pursuant to which we were able to issue and sell shares of our common stock having an aggregate offering price of up to $17.6 million from time to time through MLV as our sales agent. We paid MLV an aggregate commission rate of 3.0% of the gross proceeds of the sales price per share of the common stock sold under the prior MLV sales agreement. In 2014, no shares were sold pursuant to the prior MLV sales agreement. In April 2014, the prior sales agreement was terminated. On August 1, 2014, we entered into a subsequent at market issuance sales agreement, or the second MLV sales agreement, with MLV, pursuant to which we were able to issue and sell shares of our common stock having an aggregate offering price of up to $30.0 million from time to time through MLV as our sales agent. We did not sell any common stock under the second MLV sales agreement.

On November 2, 2015, we entered into a sales agreement, withCowen and Company, LLC, or Cowen, or the Cowen Sales Agreement, which provides that, upon the terms and subject to the conditions and limitations set forth in the Cowen Sales Agreement, we may elect to issue and sell shares of our common stock having an aggregate offering price of up to $50.0 million from time to time through Cowen as our sales agent. In connection with our entry into the Cowen Sales Agreement, we terminatedthe second MLV sales agreement. Sales of our common stock through Cowen, if any, will be made on The NASDAQ Capital Market by means of ordinary brokers' transactions at market prices, in block transactions or as otherwise agreed by us and Cowen. Subject to the terms and conditions of the sales agreement, Cowenwould use commercially reasonable efforts to sell our common stock from time to time, based upon our instructions (including any price, time or size limits or other customary parameters or conditions we may impose). We are not obligated to make any sales of common stock under the Cowen Sales Agreement. We would pay Cowen an aggregate commission rate of up to 3.0% of the gross proceeds of the sales price per share of any common stock sold under the Cowen Sales Agreement.Although the Cowen Sales Agreement remains in effect, the Cowen Sales Agreement is not currently a practical source of liquidity for us. In this regard, given our currently-depressed stock price, we are significantly limited in our ability to sell shares of common stock through Cowen under the Cowen Sales Agreement since the issuance and sale of common stock under the Cowen Sales Agreement, if it occurs, would be effected under a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, and in accordance with the rules governing those registration statements, we generally can only sell shares of our common stock under that registration statement in an amount not to exceed one-third of our public float, which limitation for all practical purposes precludes our ability to obtain any meaningful funding through the Cowen Sales Agreement at this time. Even if our stock price and public float substantially increases, the number of shares we would be able to sell under the Cowen Sales Agreement would be limited in practice based on the trading volume of our common stock. In addition, we must maintain the effectiveness of our registration statement on Form S-3 to be filed with the Securities and Exchange Commissionin order to sell any common stock under the Cowen Sales Agreement. We have not yet sold any common stock pursuant to the Cowen Sales Agreement.

License and Development Agreements

Agreement with Merck KGaA

On March 10, 2016, we terminated the global license and co-development agreement ("License Agreement") for evofosfamide with Merck KGaA, Darmstadt, Germany ("Merck"), originally entered into February 2, 2012. Under the terms of the Termination Agreement, all rights under the original agreement were returned to Threshold, as well as all rights to Merck KGaA technology developed under the License Agreement. The Termination Agreement provides digit tiered royalties on sales and milestone payments to Merck KGaA contingent upon the future successful development and commercialization of evofosfamide. To date we have received upfront and milestone payments of $110 million. We previously recorded these as deferred revenue and amortized them over the estimated performance period. As a result of Merck KGaA's and our decision to cease further joint development of evofosfamide in December 2015, we immediately recognized $65.9 million of the remaining deferred revenue into revenue during the quarter ended December 31, 2015. Also as a result of the termination of the agreement we are no longer eligible to receive any further milestone payments from Merck KGaA.

Threshold will be responsible for the commercialization of evofosfamide. Threshold is evaluating further development and commercialization opportunities for evofosfamide with other partners.

Agreement with Auckland Uniservices Ltd

On September 23, 2014, we entered into an exclusive license agreement with Auckland UniServices Ltd., a wholly-owned company of the University of Auckland. Pursuant to the agreement, we licensed exclusive worldwide rights to a development program based on tarloxotinib from Auckland Uniservices Ltd. Tarloxotinib is currently being evaluated in two Phase 2 proof-of-concept trials: one for the treatment of patients with mutant EGFR-positive, T790M-negative advanced non-small cell lung cancer progressing on an EGFR tyrosine kinase inhibitor, and the other for patients with recurrent or metastatic squamous cell carcinomas of the head and neck or skin. .Under the terms of this agreement, we made no upfront payment but we are required to pay all costs of development, as well as annual license maintenance fees starting in 2017, and assuming that we determine to advance the clinical development of tarloxotinib beyond our ongoing Phase 2 proof-of-concept studies, we would be required to pay development, regulatory and sales-based milestone payments and royalties on net sales of products, including tarloxotinib, incorporating technology licensed from Auckland Uniservices Ltd.

Agreement with Eleison Pharmaceuticals, Inc.

On January 8, 2016, we amended the exclusive license agreement with Eleison. Pursuant to the original agreement effective on October, 18, 2009, we granted Eleison exclusive worldwide rights to manufacture, develop and commercialize glufosfamide for the treatment of cancer in humans and animals, and certain other uses. Under the agreement, Eleison is responsible for the development, manufacturing and marketing of glufosfamide.

Under the amendment, Eleison will pay us 30% of its profits fromcommercialization on a quarterly basis, beginning on the date of first commercial sale, if any. Eleison has the right to sublicense some or all of its rights under the agreement, and will pay us 30% of amounts received under any sublicenses, including, without limitation, any royalty payments, license fee payments, milestone payments and payments for any equity or debt purchases by a sublicensee, within 30 days of the receipt of any such amounts or payments by Eleison. In addition, Eleison is now required to pay us up to $175 million in potential sales-based milestone payments. Eleison will bear all costs associated with development, commercialization and patent prosecution, and will control product development and commercialization. In addition, Eleison will be responsible for all royalty and milestone payments due under certain agreements pursuant to which we licensed rights related to glufosfamide. The agreement contemplates that Eleison, to satisfy its diligence obligations, will raise sufficient funds to continue clinical development activities with glufosfamide. In the event that Eleison fails to satisfy its diligence obligations, we may, at our option, terminate the agreement for material breach or convert the license granted under the agreement to a non-exclusive license.

Off-Balance Sheet Arrangements

As of December 31, 2015 and 2014, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. Therefore, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

Income Taxes

For the years ended December 31, 2015, we did not record an income tax provision due to net operating losses and the inability to record an income tax benefit. For the year ended December 31, 2014, we recorded an income tax benefit of $0.2 million, which was related to state minimum taxes recorded in the previous year. For the year ended December 31, 2013, we recorded an income tax provision of $0.2 million, which was related to state minimum taxes. As of December 31, 2015, we had accumulated approximately $124 million and $81 million in federal and state net operating loss carryforwards, respectively, to reduce future taxable income. If not utilized, our federal and state net operating loss carryforwards begin to expire in 2021 and 2016 for federal and state tax purposes, respectively. Our net operating loss carryforwards are subject to certain limitations on annual utilization in case of changes in ownership, as defined by federal and state tax laws.

At December 31, 2015, we had research credit carryforwards of approximately $8.4 million and $5.5 million for federal and California state income tax purposes, respectively. If not utilized the federal carryforward will expire in 2022. The state research credit carryforward does not have an expiration date.

We have not recorded a benefit from our net operating loss or research credit carryforwards because we believe that it is uncertain that we will have sufficient income from future operations to realize the carryforwards prior to their expiration. Accordingly, we have established a valuation allowance against the deferred tax asset arising from the carryforwards.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and related disclosures. We review our estimates on an ongoing basis. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. While our significant accounting policies are described in more detail in the notes to our consolidated financial statements included in this Annual Report on Form 10-K, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We recognize revenue in accordance with ASC 605 “Revenue Recognition”, subtopic ASC 605-25 “Revenue with Multiple Element Arrangements” and subtopic ASC 605-28 “Revenue Recognition-Milestone Method”, which provides accounting guidance for revenue recognition for arrangements with multiple deliverables and guidance on defining the milestone and determining when the use of the milestone method of revenue recognition for research and development transactions is appropriate, respectively.

Our 2015, 2014 and 2013 revenues are related to our former collaboration with Merck KGaA, which was entered in February 2012 and terminated in March 2016. Our former collaboration with Merck KGaA provided for various types of payments to us, including non-refundable upfront license, milestone and royalty payments. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, and collectability is reasonably assured. We also received reimbursement for Merck KGaA's 70% share for eligible worldwide development expenses for evofosfamide under our former collaboration with Merck KGaA. Such reimbursement was reflected as a reduction of operating expenses and not as revenue.

For multiple-element arrangements, each deliverable within a multiple deliverable revenue arrangement is accounted for as a separate unit of accounting if both of the following criteria are met: (1) the delivered item or items have value to the customer on a standalone basis and (2) for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. The deliverables under the Merck KGaA agreement have been determined to be a single unit of accounting and as such the revenue relating to this unit of accounting will be recorded as deferred revenue and recognized ratably over the term of its estimated performance period under the agreement, which is the product development period. We determine the estimated performance period, and it will be periodically reviewed based on the progress of the related product development plan. The effect of a change made to an estimated performance period and therefore revenue recognized ratably would occur on a prospective basis in the period that the change was made. We were amortizing the upfront and milestone payments from our collaboration with Merck KGaA over the estimated period of performance (product development period) which we estimated to end on March 31, 2020, for the nine months ended September 30, 2015 and years ended December 31, 2014 and 2013. As a result of Merck KGaA's and our decision to cease further joint development of evofosfamide in December 2015, we immediately recognized $65.9 million of the remaining deferred revenue into revenue during the quarter ended December 31, 2015.

Deferred revenue associated with a non-refundable payment received under a collaborative agreement for which the developmental performance obligations are terminated will result in an immediate recognition of any remaining deferred revenue in the period that termination occurred provided that all performance obligations have been satisfied.

We recognize revenue from milestone payments when: (i) the milestone event is substantive and its achievability has substantive uncertainty at the inception of the agreement, and (ii) we do not have ongoing performance obligations related to the achievement of the milestone earned. Milestone payments are considered substantive if all of the following conditions are met: the milestone payment (a) is commensurate with either our performance subsequent to the inception of the arrangement to achieve the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from our performance subsequent to the inception of the arrangement to achieve the milestone, (b) relates solely to past performance, and (c) is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement. See Note 3, "Collaboration Arrangements", in the Notes to the Consolidated Financial Statements included in Part II, Item 8. "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K, for analysis of each milestone event deemed to be substantive or non-substantive.

Determining whether and when some of these revenue recognition criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of revenue we report. Changes in assumptions or judgments or changes to the elements in an arrangement could cause a material increase or decrease in the amount of revenue that we report in a particular period.

Stock-Based Compensation

We account for stock options and stock purchase rights related to our equity incentive plans under the provisions of ASC 718 which requires the recognition of the fair value of stock-based compensation. The fair value of stock options and ESPP shares was estimated using a Black-Scholes option valuation model. This model requires the input of subjective assumptions including expected stock price volatility, expected life and estimated forfeitures of each award. The fair value of equity-based awards is amortized ratably over the requisite service period of the award. Due to the limited amount of historical data available to us, particularly with respect to stock-price volatility, employee exercise patterns and forfeitures, actual results could differ from our assumptions.

We account for equity instruments issued to non-employees in accordance with the provisions of ASC 718 and ASC 505, *"Equity."* As a result, the non-cash charge to operations for non-employee options with service or other performance criteria is affected each reporting period by changes in the estimated fair value of our common stock, as the underlying equity instruments vest. The two factors which most affect these changes are the price of the common stock underlying stock options for which stock-based compensation is recorded and the volatility of the stock price. If our estimates of the fair value of these equity instruments change, it may have the effect of significantly changing compensation expense.

Fair Value of Warrants

ASC 815 provides guidance that clarifies the determination of whether an instrument (or an embedded feature) is indexed to an entity's own stock, which would qualify for classification as a liability. The guidance requires stock warrants with certain terms be classified as a liability and to be fair valued at each reporting period, with the changes in fair value recognized in our consolidated statements of operations. We fair value the warrants using a Black Scholes valuation model, which requires the use of significant judgment and estimates related to the inputs used in the model and can result in significant swings in the fair market valuation primarily due to changes in the price of our common stock. Since the outstanding common stock warrants are fair valued at the end of each reporting period, any significant change in the underlying assumptions to the Black Scholes valuation model, including the volatility and price of our common stock, may have a significant impact on the expense we recognize related to these common stock warrants.

Preclinical and Clinical Trial Accruals

Most of our preclinical and clinical trials are performed by third party contract research organizations, or CROs, and clinical supplies are manufactured by contract manufacturing organizations, or CMOs. Invoicing from these third parties may be monthly based upon services performed or based upon milestones achieved. We accrue these expenses based upon our assessment of the status of each clinical trial and the work completed, and upon information obtained from the CROs and CMOs. Our estimates are dependent upon the timeliness and accuracy of data provided by the CROs and CMOs regarding the status and cost of the studies, and may not match the actual services performed by the organizations. This could result in adjustments to our research and development expenses in future periods or restatement of prior periods. To date we have had no significant adjustments.

Marketable Securities

We classify all of our marketable securities as available-for-sale. We carry these investments at fair value, based upon the levels of inputs described below, and unrealized gains and losses are included in accumulated other comprehensive income (loss) which is reflected in the consolidated statements of comprehensive loss. The amortized cost of securities in this category is adjusted for amortization of premiums and accretions of discounts to maturity. Such amortization is included in interest income. Realized gains and losses are recorded in our statements of operations. If we believe that an other-than-temporary decline exists, it is our policy to record a write-down to reduce the investments to fair value and record the related charge as a reduction of interest income.

We adopted ASC 820, *"Fair Value and Measurements,* in the first quarter of 2008. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Our short-term investments primarily utilize broker quotes in a non-active market for valuation of these securities.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

ASC 820 requires us to maximize the use of observable inputs and minimize the use of unobservable inputs. If a financial instrument uses inputs that fall in different levels of the hierarchy, the instrument will be categorized based upon the lowest level of input that is significant to the fair value calculation. Our financial assets measured at fair value on a recurring basis include securities available for sale. Securities available for sale include money market funds, government securities, commercial paper and corporate debt securities.

Accounting for Income Taxes

Our income tax policy records the estimated future tax effects of temporary differences between the tax basis of assets and liabilities and amounts reported in the accompanying balance sheets, as well as operating loss and tax credit carry forwards. We have recorded a full valuation allowance to reduce our deferred tax assets, as based on available objective evidence; it is more likely than not that the deferred tax assets will not be realized. In the event that we were to determine that we would be able to realize our deferred tax assets in the future, an adjustment to the deferred tax assets would result in an income tax benefit in the period such determination is made.

Recent Accounting Pronouncements Not Yet Adopted

In May 2014, the Financial Accounting Standards Board ("FASB") issued an accounting standard update regarding revenue from customer contracts to transfer goods and services or non-financial assets unless the contracts are covered by other standards (for example, insurance or lease contracts). Under the new guidance, an entity should recognize revenue in connection with the transfer of promised goods or services to customers in an amount that reflects the consideration that the entity expects to be entitled to receive in exchange for those goods or services. In addition, the new standard requires that reporting companies disclose the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. In August 2015, the FASB deferred the effective date of the update by one year, with early adoption on the original effective date permitted. The updates are effective for us beginning in the first quarter of the fiscal year 2018. The new revenue standard may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of adoption. We are currently evaluating the impact of this accounting standard update on our consolidated financial statements.

In August 2014, the FASB issued an accounting standard update that is intended to define management's responsibility to evaluate whether there is substantial doubt about an organization's ability to continue as a going concern and to provide related footnote disclosures. It requires management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. Specifically, the amendments: (1) provide a definition of the term substantial doubt; (2) require an evaluation every reporting period including interim periods; (3) provide principles for considering the mitigating effect of management's plans; (4) require certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans; (5) require an express statement and other disclosures when substantial doubt is not alleviated; and (6) require an assessment for a period of one year after the date that the financial statements are issued (or available to be issued). This guidance will be effective for us beginning with its annual report for fiscal 2016 and interim periods thereafter. We are currently evaluating the impact the standard will have on our financial statements.

In November 2015, the FASB issued an accounting standard update for the presentation of deferred income taxes. Under this new guidance, deferred tax liabilities and assets should be classified as noncurrent in a classified balance sheet. The update is effective for us beginning in the first quarter of fiscal year 2018 with early adoption permitted as of the beginning of an interim or annual reporting period. Additionally, this guidance may be applied either prospectively or retrospectively to all periods presented. We are currently evaluating the impact the standard will have on our financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

Interest Rate Risk. Our exposure to market risk for changes in interest rates relates to our cash equivalents on deposit in highly liquid money market funds and investments in short-term marketable securities. The primary objective of our cash investment activities is to preserve principal while at the same time maximizing the income we receive from our invested cash without significantly increasing risk of loss. We invest in high-quality financial instruments, which currently have weighted average maturity of less than one year. We do not use derivative financial instruments in our investment portfolio. Our cash and investments policy emphasizes liquidity and preservation of principal over other portfolio considerations. Our investment policy also limits the amount we may invest in any one type of investment issuer, thereby reducing credit risk concentrations. Our investment portfolio is subject to interest rate risk and will fall in value if market interest rates rise. However, due to the short duration of our investment portfolio we believe an increase in the interest rates of ten percent would not be material to our financial condition or results of operations.

In addition, we do not have any material exposure to foreign currency rate fluctuations as we operate primarily in the United States. Although we conduct some clinical and safety studies, and manufacture active pharmaceutical product and some drug product with vendors outside the United States, most of our transactions are denominated in U.S. dollars.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

THRESHOLD PHARMACEUTICALS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Threshold Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Threshold Pharmaceuticals, Inc. as of December 31, 2015 and 2014, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Threshold Pharmaceuticals, Inc., at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Threshold Pharmaceutical, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 10, 2016, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Jose, California
March 10, 2016

THRESHOLD PHARMACEUTICALS, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	December 31,	
	2015	2014
ASSETS		
Current assets:		
Cash and cash equivalents	$ 9,589	$ 8,391
Marketable securities, current	39,091	50,209
Collaboration receivable	1,891	7,248
Prepaid expenses and other current assets	2,599	832
Total current assets	53,170	66,680
Property and equipment, net	333	557
Other assets	166	1,159
Total assets	$ 53,669	$ 68,396
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	$ 725	$ 2,074
Accrued clinical and development expenses	6,834	5,998
Accrued liabilities	3,269	3,180
Deferred revenue, current	—	14,722
Total current liabilities	10,828	25,974
Warrant liability	1,864	3,961
Deferred revenue, non-current	—	62,194
Deferred rent	131	243
Total liabilities	12,823	92,372
Commitments and contingencies (Note 7)		
Stockholders' equity (deficit):		
Preferred stock, $0.001 par value:		
Authorized: 2,000,000 shares; no shares issued and outstanding.	—	—
Common stock, $0.001 par value:		
Authorized: 150,000,000 shares at December 31, 2015 and 2014; Issued and outstanding: 71,462,059 and 62,898,233 shares at December 31, 2015 and 2014, respectively.	71	63
Additional paid-in capital	370,236	349,236
Accumulated other comprehensive loss	(21)	(13)
Accumulated deficit	(329,440)	(373,262)
Total stockholders' equity (deficit)	40,846	(23,976)
Total liabilities and stockholders' equity (deficit)	$ 53,669	$ 68,396

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

THRESHOLD PHARMACEUTICALS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except per share data)

	Years Ended December 31,		
	2015	2014	2013
Revenue	$ 76,915	$ 14,722	$ 12,495
Operating expenses:			
Research and development	40,271	35,832	29,334
General and administrative	9,716	10,141	9,185
Total operating expenses	49,987	45,973	38,519
Income (loss) from operations	26,928	(31,251)	(26,024)
Interest income (expense), net	125	121	136
Other income (expense), net	16,769	9,344	(2,325)
Income (loss) before provision for income taxes	43,822	(21,786)	(28,213)
Provision (benefit) for income taxes	—	(202)	202
Net income (loss)	43,822	(21,584)	(28,415)
Other comprehensive income (loss):			
Unrealized gain (loss) on available for sale securities	(8)	(41)	17
Comprehensive income (loss)	$ 43,814	$ (21,625)	$ (28,398)
Net income (loss) per common share:			
Basic	$ 0.62	$ (0.36)	$ (0.49)
Diluted	$ 0.54	$ (0.49)	$ (0.49)
Weighted average number of shares used in per common share calculations:			
Basic	70,242	60,335	57,832
Diluted	73,483	63,386	57,832

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

THRESHOLD PHARMACEUTICALS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(in thousands, except share and per share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balances, December 31, 2012	56,431,207	$ 56	$ 309,343	$ 11	$ (323,263)	$ (13,853)
Exercise of warrants to purchase common stock	2,488,518	3	1,879	—	—	1,882
Issuance of common stock pursuant to stock plans	312,886	—	510	—	—	510
Stock-based compensation	—	—	4,922	—	—	4,922
Reclassification of fair value of warrants exercised from liability to equity	—	—	11,462	—	—	11,462
Change in unrealized gain (loss) on marketable securities	—	—	—	17	—	17
Net loss	—	—	—	—	(28,415)	(28,415)
Balances, December 31, 2013	59,232,611	$ 59	$ 328,116	$ 28	$ (351,678)	$ (23,475)
Exercise of warrants to purchase common stock	3,437,348	3	4,831	—	—	4,834
Issuance of common stock pursuant to stock plans	228,274	1	685	—	—	686
Stock-based compensation	—	—	5,488	—	—	5,488
Reclassification of fair value of warrants exercised from liability to equity	—	—	10,116	—	—	10,116
Change in unrealized gain (loss) on marketable securities	—	—	—	(41)	—	(41)
Net loss	—	—	—	—	(21,584)	(21,584)
Balances, December 31, 2014	62,898,233	63	349,236	(13)	(373,262)	(23,976)
Issuance of common stock to certain investors, net of issuance costs of $1.9 million	8,300,000	8	13,445	—	—	13,453
Exercise of warrants to purchase common stock	10,000	—	25	—	—	25
Issuance of common stock pursuant to stock plans	99,759	—	712	—	—	712
Stock-based compensation	154,067	—	6,801	—	—	6,801
Reclassification of fair value of warrants exercised from liability to equity	—	—	17	—	—	17
Change in unrealized gain (loss) on marketable securities	—	—	—	(8)	—	(8)
Net income	—	—	—	—	43,822	43,822
Balances, December 31, 2015	71,462,059	71	370,236	(21)	(329,440)	40,846

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

THRESHOLD PHARMACEUTICALS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2015	2014	2013
Cash flows from operating activities:			
Net income (loss)	$ 43,822	$ (21,584)	$ (28,415)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	1,002	1,309	1,506
Stock-based compensation expense	6,801	5,488	4,922
Change in common stock warrant value	(16,773)	(9,344)	2,325
(Gain) loss on sale of investments, property and equipment	14	(3)	(5)
Changes in operating assets and liabilities:			
Collaboration receivable	5,357	10,846	(2,459)
Prepaid expenses and other current assets	(774)	1,314	(1,079)
Accounts payable	(1,349)	385	781
Accrued clinical and development expenses	836	(1,446)	1,694
Accrued liabilities	89	19	904
Deferred rent	(112)	3	(28)
Deferred revenue	(76,916)	(14,722)	30,005
Net cash provided by (used in) operating activities	(38,003)	(27,735)	10,151
Cash flows from investing activities:			
Acquisition of property and equipment	(109)	(224)	(158)
Acquisition of marketable securities	(56,793)	(44,911)	(101,968)
Proceeds from sales of marketable securities	1,997	14,584	5,338
Proceeds from maturities of marketable securities	65,223	53,878	80,495
Net cash provided by (used in) investing activities	10,318	23,327	(16,293)
Cash flows from financing activities:			
Proceeds from issuance of common stock and warrants, net of offering expenses	28,883	5,520	2,392
Net cash provided by financing activities	28,883	5,520	2,392
Net increase (decrease) in cash and cash equivalents	1,198	1,112	(3,750)
Cash and cash equivalents, beginning of period	8,391	7,279	11,029
Cash and cash equivalents, end of period	$ 9,589	$ 8,391	$ 7,279

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

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Operations and Basis of Presentation

Threshold Pharmaceuticals, Inc. (the "Company" or "Threshold") was incorporated in the State of Delaware on October 17, 2001. The Company is a biotechnology company using its expertise in the tumor microenvironment to discover and develop therapeutic agents that selectively target tumor cells for the treatment of patients living with cancer. In June 2005, the Company formed a wholly-owned subsidiary, THLD Enterprises (UK), Limited in the United Kingdom in connection with conducting clinical trials in Europe. As of December 31, 2015, there has been no financial activity related to this entity.

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America and include the accounts of the Company and its wholly owned subsidiary, and reflect the elimination of intercompany accounts and transactions.

Revenue Recognition

The Company recognizes revenue in accordance with ASC 605 "Revenue Recognition", subtopic ASC 605-25 "Revenue with Multiple Element Arrangements" and subtopic ASC 605-28 "Revenue Recognition-Milestone Method", which provides accounting guidance for revenue recognition for arrangements with multiple deliverables and guidance on defining the milestone and determining when the use of the milestone method of revenue recognition for research and development transactions is appropriate, respectively.

The Company's revenues were related to its former collaboration arrangement with Merck KGaA, which was entered in February 2012. The collaboration with Merck KGaA provided for various types of payments to the Company, including non-refundable upfront license, milestone and royalty payments. The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, and collectability is reasonably assured. The Company also received reimbursement for Merck KGaA's 70% share for eligible worldwide development expenses for evofosfamide (formerly TH-302). Such reimbursement was reflected as a reduction of operating expenses. In March 2016, the Company and Merck KGaA agreed to terminate the collaboration and all rights evofosfamide were returned to the Company.

For multiple-element arrangements, each deliverable within a multiple deliverable revenue arrangement is accounted for as a separate unit of accounting if both of the following criteria are met: (1) the delivered item or items have value to the customer on a standalone basis and (2) for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in the Company's control. The deliverables under the Merck KGaA agreement were determined to be a single unit of accounting and as such the revenue relating to this unit of accounting was recorded as deferred revenue and recognized ratably over the term of its estimated performance period under the agreement, which was the product development period. The Company determines the estimated performance period and it was periodically reviewed based on the progress of the related product development plan. The effect of a change made to an estimated performance period and therefore revenue recognized ratably would occur on a prospective basis in the period that the change was made.

Deferred revenue associated with a non-refundable payment received under a collaborative agreement for which the developmental performance obligations are terminated will result in an immediate recognition of any remaining deferred revenue in the period that termination occurred provided that all performance obligations have been satisfied.

The Company recognizes revenue from milestone payments when: (i) the milestone event is substantive and its achievability has substantive uncertainty at the inception of the agreement, and (ii) the Company does not have ongoing performance obligations related to the achievement of the milestone earned. Milestone payments are considered substantive if all of the following conditions are met: the milestone payment (a) is commensurate with either the Company's performance subsequent to the inception of the arrangement to achieve the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the Company's performance subsequent to the inception of the arrangement to achieve the milestone, (b) relates solely to past performance, and (c) is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement. See Note 3, "Collaboration Arrangements," for analysis of milestone events deemed to be substantive or non-substantive.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates. Significant estimates, assumptions and judgments made by management include those related to the valuation of equity and related instruments, revenue recognition, stock-based compensation and clinical trial accrued liabilities.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less on the date of purchase, to be cash equivalents. All cash and cash equivalents are held in the United States of America in financial institutions or money market funds, which are unrestricted as to withdrawal or use.

Marketable Securities

The Company classifies its marketable securities as "available-for-sale." Such marketable securities are recorded at fair value and unrealized gains and losses are recorded as a separate component of stockholders' equity (deficit) until realized. Realized gains and losses on sale of all such securities are reported in net loss, computed using the specific identification cost method. The Company places its marketable securities primarily in U.S. government securities, money market funds, corporate debt securities, commercial paper and certificates of deposit.

The Company's investments are subject to a periodic impairment review. The Company recognizes an impairment charge when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. The Company considers various factors in determining whether to recognize an impairment charge, including the length of time and extent to which the fair value has been less than the Company's cost basis, the financial condition and near-term prospects of the investee, and the Company's intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in the market value.

Fair Value of Financial Instruments

The carrying amounts of certain of the Company's financial instruments, including cash and cash equivalents, accounts payable and accrued liabilities approximate fair value due to their relatively short maturities. Estimated fair values for marketable securities, which are separately disclosed in Note 4, "Fair Value Measurements and Marketable Securities," are based on quoted market prices for the same or similar instruments. The counterparties to the agreements relating to the Company's investment securities consist of the US Treasury, various major corporations, governmental agencies and financial institutions with high credit standing.

Fair Value of Warrants

ASC 815 "Derivatives and Hedging" provides guidance that clarifies the determination of whether an instrument (or an embedded feature) is indexed to an entity's own stock, which would qualify for classification as a liability. The guidance requires common stock warrants with certain terms be classified as a liability and to be fair valued at each reporting period, with the changes in fair value recognized in the Company's consolidated statements of operations. We fair value the outstanding common stock warrants using a Black Scholes valuation model at the end of each reporting period. The carrying amount of the common stock warrant liability represents its estimated fair value.

Concentration of Credit Risk

Financial instruments which potentially subject the Company to concentrations of risk consist principally of cash, cash equivalents and marketable securities. The Company invests in a variety of financial instruments, such as, but not limited to, certificates of deposit, corporate and municipal bonds, United States Treasury and agency securities. The Company is exposed to credit risk in the event of default by the financial institutions for amounts in excess of Federal Deposit Insurance Corporation insured limits. The Company performs periodic evaluations of the relative credit standings of these financial institutions, and by policy, limits the amount of credit exposure with any one financial institution or commercial issuer.

Other Risks and Uncertainties

The Company has not generated and does not expect to generate revenue from sales of our product candidates in the near term.The Company also currently has no ongoing collaborations for the development and commercialization of its product candidates and no source of revenue. Since the Company's inception, the Company has funded its operations primarily through private placements and public offerings of equity securities and through payments received under its former collaboration with Merck KGaA. The Company has incurred significant losses since its inception. The Company continues to incur substantial expenses related to development and, subject to the Company's ability to raise additional funding, management believes that it will continue to do so for the foreseeable future. On March 10, 2016, the Company terminated the global license and co-development agreement ("License Agreement") for evofosfamide with Merck KGaA, Darmstadt, Germany ("Merck"), originally entered into February 2, 2012. To date, the Company has received $110 million in upfront and milestone payments from this collaboration. As a result of the termination of the agreement the Company is no longer eligible to receive any further milestone payments or other funding from Merck KGaA including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA. See further details in Note 3, "Collaboration Arrangements".

The Company believes that its cash, cash equivalents and marketable securities will be sufficient to fund its projected operating requirements for at least the next 12 months based upon current operating plans and spending assumptions. However the Company will need to raise additional capital to advance the clinical development of its product candidates, whether through new collaborative or partnering arrangements or otherwise, and to in-license or otherwise acquire and develop additional product candidates or programs. In particular, the Company's ability to advance the clinical development of its lead product candidate, evofosfamide, is dependent upon its ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development, particularly since the Company is no longer eligible to receive any further milestone payments or other funding from Merck KGaA, including the 70% of worldwide development costs for evofosfamide that were previously borne by Merck KGaA.

While the Company has been able to fund its operations to date, the Company currently has no ongoing collaborations for the development and commercialization of its product candidates and no source of revenue, nor does the Company expect to generate revenue for the foreseeable future. The Company also does not have any commitments for future external funding. Until the Company can generate a sufficient amount of product revenue, which it may never do, the Company expects to finance future cash needs through a variety of sources, including:

- the public equity market;
- private equity financing;
- collaborative arrangements;
- licensing arrangements; and/or
- public or private debt.

The Company's ability to raise additional funds and the terms upon which it is able to raise such funds have been severely harmed by the negative results reported from the Company's two pivotal Phase 3 clinical trials of evofosfamide, and may in the future be adversely impacted by the uncertainty regarding the prospects for future development of evofosfamide and the Company's ability to advance the development of evofosfamide and its other product candidate, tarloxotinib, or otherwise realize any return on its investments in evofosfamide and tarloxotinib, if at all. The Company's ability to raise additional funds and the terms upon which it is able to raise such funds may also be adversely affected by the uncertainties regarding its financial condition, the sufficiency of its capital resources, the Company's ability to maintain the listing of its common stock on The NASDAQ Capital Market and recent and potential future management turnover. As a result of these and other factors, the Company cannot be certain that sufficient funds will be available to it or on satisfactory terms, if at all. To the extent the Company raises additional funds by issuing equity securities, its stockholders may experience significant dilution, particularly given the Company's currently depressed stock price, and debt financing, if available, may involve restrictive covenants. If adequate funds are not available, the Company may be required to significantly reduce or refocus its operations or to obtain funds through arrangements that may require the Company to relinquish rights to its product candidates, technologies or potential markets, any of which could result in the Company's stockholders having little or no continuing interest in the Company's evofosfamide or tarloxotinib programs as stockholders or otherwise, or which could delay or require that the Company curtail or eliminate some or all of its development programs or otherwise have a material adverse effect on the Company's business, financial condition and results of operations. In addition,the Company may have to delay, reduce the scope of or eliminate some of its development, which could delay the time to market for any of its product candidates, if adequate funds are not available. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities would result in ownership dilution to existing stockholders. There are no assurances that the Company will be able to raise additional financing on terms acceptable to the Company.

If the Company is unable to secure additional funding on a timely basis or on terms favorable to the Company, the Company may be required to cease or reduce certain development projects, to conduct additional workforce reductions, to sell some or all of its technology or assets or to merge all or a portion of the Company's business with another entity. Insufficient funds may require the Company to delay, scale back, or eliminate some or all of its activities, and if the Company is unable to obtain additional funding, there is uncertainty regarding the Company's continued existence.

The Company's lead product candidate, evofosfamide, has not received any regulatory approvals. To achieve profitable operations, the Company must successfully develop, test, manufacture and market its product candidates, including evofosfamide. With respect to evofosfamide, the Company's ability to advance the clinical development of evofosfamide is dependent upon its ability to enter into new collaborative or partnering arrangements for evofosfamide, or to otherwise obtain sufficient additional funding for such development. In addition, the Company's development of tarloxotinib is at an early stage and it is possible that tarloxotinib may not be found to be safe or effective in the Company's ongoing Phase 2 proof-of-concept studies of tarloxotinib and the Company may otherwise fail to realize the anticipated benefits of its licensing of this product candidate. There can be no assurance that evofosfamide, tarloxotinib or any other of the Company's potential future product candidates will be developed successfully or manufactured at an acceptable cost and with appropriate performance characteristics, or that such products will be successfully marketed. These factors could have a material adverse effect on the Company's future financial results.

Any products developed by the Company will require approval from the U.S. Food and Drug Administration ("FDA") or foreign regulatory agencies prior to commercial sales. There can be no assurance that the Company's products will receive the necessary approvals. If the Company is denied such approvals or such approvals are delayed, it could have a material adverse effect on the Company.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. Depreciation is computed on a straight-line basis over the estimated useful lives of the related assets, generally three years. Leasehold improvements are amortized using the straight-line method over the estimated useful life of the improvement, or the lease term, if shorter. Accordingly, leasehold improvements are being amortized over lease terms of approximately 4-6 years. Maintenance and repairs are charged to operations as incurred. Upon sale or retirement of assets, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in operations. The Company reviews its property, plant and equipment assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Comprehensive loss

Comprehensive loss is comprised of the Company's net loss and other comprehensive income (loss). Unrealized gain (loss) on available-for-sale marketable securities represents the only component of other comprehensive income (loss).

Research and Development expenses

Research and development expenses consist of costs such as salaries and benefits, laboratory supplies, facility costs, consulting fees and fees paid to contract research organizations, clinical trial sites, laboratories, other clinical service providers and contract manufacturing organizations. Research and development expenses are expensed as incurred.

Clinical Trial Accruals

The Company's preclinical and clinical trials are performed by third party contract research organizations (CROs) and/or clinical investigators, and clinical supplies are manufactured by contract manufacturing organizations (CMOs). Invoicing from these third parties may be monthly based upon services performed or based upon milestones achieved. The Company accrues these expenses based upon its assessment of the status of each clinical trial and the work completed, and upon information obtained from the CROs and CMOs. The Company's estimates are dependent upon the timeliness and accuracy of data provided by the CROs and CMOs regarding the status and cost of the studies, and may not match the actual services performed by the organizations. This could result in adjustments to the Company's research and development expenses in future periods. To date the Company has had no significant adjustments.

Bonus Accruals

The Company has bonus programs for eligible employees. Bonuses are determined based on various criteria, including the achievement of corporate, departmental and individual goals. Bonus accruals are estimated based on various factors, including target bonus percentages per level of employee and probability of achieving the goals upon which bonuses are based. The Company's management periodically reviews the progress made towards the goals under the bonus programs. As bonus accruals are dependent upon management's judgments of the likelihood of achieving the various goals, it is possible for bonus expense to vary significantly in future periods if changes occur in those management estimates.

Income Taxes

The Company accounts for income taxes under the liability method. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Segments

The Company has one reportable segment and uses one measurement of results of operations to manage its business. All long-lived assets are maintained in the United States of America.

Stock-Based compensation

The Company accounts for stock-based compensation in accordance with ASC 718, "*Compensation—Stock Compensation,"* which requires measurement of all employee stock-based compensation awards using a fair-value method and recording of such expense in the consolidated financial statements over the requisite service period.

The Company accounts for equity instruments issued to non-employees in accordance with the provisions of ASC 718 and ASC 505,*"Equity,"* which require that such equity instruments are recorded at their fair value on the measurement date. The measurement of stock-based compensation is subject to periodic adjustment as the underlying equity instruments vest.

See Note 9 "Equity Incentive Plans and Stock Based Compensation" for further discussion.

Restructuring Charges

Restructuring charges are primarily comprised of severance costs, contract and program termination costs, asset impairments and costs of facility consolidation and closure. Restructuring charges are recorded upon approval of a formal management plan and are included in the operating results of the period in which such plan is approved and the expense becomes estimable.

Recent Accounting Pronouncements Not Yet Adopted

In May 2014, the Financial Accounting Standards Board ("FASB") issued an accounting standard update regarding revenue from customer contracts to transfer goods and services or non-financial assets unless the contracts are covered by other standards (for example, insurance or lease contracts). Under the new guidance, an entity should recognize revenue in connection with the transfer of promised goods or services to customers in an amount that reflects the consideration that the entity expects to be entitled to receive in exchange for those goods or services. In addition, the new standard requires that reporting companies disclose the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The updates are effective for the Company beginning in the first quarter of the fiscal year 2018. In August 2015, the FASB deferred the effective date of the update by one year, with early adoption on the original effective date permitted. The new revenue standard may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of adoption. The Company is currently evaluating the impact of this accounting standard update on its consolidated financial statements.

In August 2014, the FASB issued an accounting standard update that is intended to define management's responsibility to evaluate whether there is substantial doubt about an organization's ability to continue as a going concern and to provide related footnote disclosures. It requires management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. Specifically, the amendments: (1) provide a definition of the term substantial doubt; (2) require an evaluation every reporting period including interim periods; (3) provide principles for considering the mitigating effect of management's plans; (4) require certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans; (5) require an express statement and other disclosures when substantial doubt is not alleviated; and (6) require an assessment for a period of one year after the date that the financial statements are issued (or available to be issued). This guidance will be effective for the Company beginning with its annual report for fiscal 2016 and interim periods thereafter. The Company is currently evaluating the impact the standard will have on its financial statements.

In November 2015, the FASB issued an accounting standard update for the presentation of deferred income taxes. Under this new guidance, deferred tax liabilities and assets should be classified as noncurrent in a classified balance sheet. The update is effective for the Company beginning in the first quarter of fiscal year 2018 with early adoption permitted as of the beginning of an interim or annual reporting period. Additionally, this guidance may be applied either prospectively or retrospectively to all periods presented. The Company does not expect this standard to have a material impact on its consolidated financial statements.

NOTE 2—NET INCOME (LOSS) PER COMMON SHARE

Basic net income (loss) per common share is computed by dividing net loss by the weighted-average number of common shares outstanding during the period. Diluted net income (loss) per common share is computed by giving effect to all potential dilutive common shares, including outstanding options and warrants.

Potential dilutive common shares also include the dilutive effect of the common stock underlying in-the-money stock options and warrants that were calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the proceeds from the exercise of an option or warrant is assumed to be used to repurchase shares in the current period. In addition, the average amount of compensation cost for in-the-money options, if any, for future service that the Company has not yet recognized when the option is exercised, is also assumed to repurchase shares in the current period.

A reconciliation of the numerator and denominator used in the calculation is as follows (in thousands, except per share amounts):

	Years Ended December 31,		
	2015	2014	2013
Numerator:			
Net income (loss) - basic	$ 43,822	$ (21,584)	$ (28,415)
Less: noncash income from change in fair value of common stock warrants	3,906	9,344	—
Net income (loss) - diluted	39,916	$ (30,928)	$ (28,415)
Denominator:			
Weighted-average number of common shares outstanding	70,242	60,335	57,832
Dilutive effect of equity incentive awards	1,873	—	—
Dilutive effect of warrants	1,368	3,051	—
Weighted-average common shares outstanding and dilutive potential common share-diluted	73,483	63,386	57,832
Net income (loss) per share:			
Basic	$ 0.62	$ (0.36)	$ (0.49)
Diluted	$ 0.54	$ (0.49)	$ (0.49)

The following warrants, outstanding options and purchase rights under the Company's 2004 Employee Stock Purchase Plan ("2004 Purchase Plan") were excluded from the computation of diluted net income (loss) per common share for the periods presented because including them would have had an antidilutive effect (in thousands

	Years Ended December 31,		
	2015	2014	2013
Shares issuable upon exercise of warrants	8,300	—	8,282
Shares issuable upon exercise of stock options	6,750	8,169	6,527
Shares issuable related to the ESPP	34	67	64

NOTE 3—COLLABORATION ARRANGEMENTS

Agreement with Merck KGaA

On February 3, 2012, the Company entered into a global license and co-development agreement, or License Agreement, with Merck KGaA, of Darmstadt, Germany, to co-develop and commercialize evofosfamide, the Company's small molecule hypoxia-targeted drug. Under the terms of the License Agreement, Merck KGaA received co-development rights, exclusive global commercialization rights and provided the Company with an option to co-commercialize evofosfamide in the United States. To date the Company received $110 million in upfront and milestone payments. The milestones earned to date were not deemed to be substantive milestones because the work related to the achievement of these items was predominately completed prior to the inception of the arrangement or was not commensurate with Company's performance subsequent to the inception of the arrangement to achieve the milestone.

The Company's deliverables under the License Agreement with Merck KGaA, which included delivery of the rights and license for evofosfamide and performance of research and development activities, were determined to be a single unit of accounting. The delivered license did not have standalone value at the inception of the arrangement due to the Company's proprietary expertise with respect to the licensed compound and related ongoing developmental participation under the License Agreement, which was required for Merck KGaA to fully realize the value from the delivered license. Therefore, the revenue relating to this unit of accounting was recorded as deferred revenue and recognized over the estimated performance period under the License Agreement, which is the product development period. The Company recorded $42.5 million of milestones earned in 2013 and $67.5 million of upfront payment and milestones earned in 2012 as deferred revenue and was amortizing them ratably over its estimated period of performance, which the Company estimated to end on March 31, 2020 for the years ended December 31, 2014 and 2013. As a result, the Company recognized $14.7 million and $12.5 million of revenue in 2014 and 2013, respectively. The Company recognized $76.9 million of revenue in 2015 due to Merck KGaA's decision to cease further joint development of evofosfamide in December 2015, which resulted in the immediate recognition of the remaining deferred revenue into revenue during the quarter ended December 31, 2015. Further, in March 2016, Merck KGaA exercised its right to terminate the License Agreement and all rights were returned to Threshold, as well as all rights to Merck technology developed under the License Agreement. Also as a result of the termination of the License Agreement the Company was no longer eligible to receive any further milestone payments from Merck KGaA.

Merck KGaA also paid 70% of worldwide development expenses for evofosfamide and as result the Company earned a $11.6 million, $21.9 million and $16.5 million reimbursement for eligible worldwide development expenses for evofosfamide from Merck KGaA in 2015, 2014 and 2013, respectively. Such earned reimbursement has been reflected as a reduction of research and development expenses. With the decision to cease further joint development of evofosfamide and the termination of the License Agreement the Company is no longer eligible to receive payments from Merck KGaA for expenses related to further development of evofosfamide.

NOTE 4—FAIR VALUE MEASUREMENTS AND MARKETABLE SECURITIES

The Company accounts for its marketable securities in accordance with ASC 820*"Fair Value Measurements and Disclosures."* ASC 820 defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. For Level 2 securities that have market prices from multiples sources, a "consensus price" or a weighted average price for each of these securities can be derived from a distribution-curve-based algorithm which includes market prices obtained from a variety of industrial standard data providers (e.g. Bloomberg), security master files from large financial institutions, and other third-party sources. Level 2 securities with short maturities and infrequent secondary market trades are typically priced using mathematical calculations adjusted for observable inputs when available.

The following table sets forth the Company's financial assets (cash equivalents and available-for-sale marketable securities) at fair value on a recurring basis as of December 31, 2015 and 2014:

(in thousands)	Fair Value as of December 31, 2015	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
Money market funds	$ 5,421	$ 5,421	$ —	$ —
Certificates of deposit	696	—	696	—
Corporate debt securities	12,571	—	12,571	—
Government securities	21,769	—	21,769	—
Municipal securities	1,908	—	1,908	—
Commercial paper	6,145	—	6,145	—
Total cash equivalents and marketable securities	$ 48,510	$ 5,421	$ 43,089	$ —

(in thousands)	Fair Value as of December 31, 2014	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
Money market funds	$ 3,369	$ 3,369	$ —	$ —
Certificates of deposit	2,505	—	2,505	—
Corporate debt securities	28,081	—	28,081	—
Government securities	19,123	—	19,123	—
Commercial paper	5,499	—	5,499	—
Total cash equivalents and marketable securities	$ 58,577	$ 3,369	$ 55,208	$ —

The Company invests in highly-liquid, investment-grade securities. The following is a summary of the Company's available-for-sale securities at December 31, 2015 and 2014:

As of December 31, 2015 (in thousands):	Cost Basis	Unrealized Gain	Unrealized Loss	Fair Value
Money market funds	$ 5,421	$ —	$ —	$ 5,421
Certificates of deposit	696	—	—	696
Corporate debt securities	12,578	1	(8)	12,571
Municipal securities	1,908	—	—	1,908
Government securities	21,783	—	(14)	21,769
Commercial paper	6,145	—	—	6,145
	48,531	1	(22)	48,510
Less cash equivalents	(9,419)	—	—	(9,419)
Total marketable securities	$ 39,112	$ 1	$ (22)	$ 39,091

As of December 31, 2014 (in thousands):	Cost Basis	Unrealized Gain	Unrealized Loss	Fair Value
Money market funds	$ 3,369	$ —	$ —	$ 3,369
Certificates of deposit	2,505	—	—	2,505
Corporate debt securities	28,094	1	(14)	28,081
Government securities	19,123	3	(3)	19,123
Commercial paper	5,499	—	—	5,499
	58,590	4	(17)	58,577
Less cash equivalents	(8,368)	—	—	(8,368)
Total marketable securities	$ 50,222	$ 4	$ (17)	$ 50,209

The Company recognized realized gains of $3,000 and $5,000 in 2014 and 2013, respectively. There were no realized losses in 2014 or 2013. There were no realized gains or losses in 2015. The Company realized no gains in 2014 and 2013 that were previously classified as unrealized gains and losses in accumulated other comprehensive income at December 31, 2014 or 2013, respectively.

As of December 31, 2015, weighted average maturity for the Company's available for sale securities was approximately 2.8 months, with the longest maturity being August 2016.

The following table provides the breakdown of the marketable securities with unrealized losses at December 31, 2015 (in thousands):

As of December 31, 2015 (in thousands):	In loss position for less than twelve months	
	Fair Value	Unrealized Loss
Government securities	$ 16,730	$ (14)
Corporate debt securities	10,260	(8)
Total marketable securities	$ 26,990	$ (22)

The Company classifies financial instruments in Level 3 of the fair value hierarchy when there is reliance on at least one significant unobservable input to the valuation model. In addition to these unobservable inputs, the valuation models for Level 3 financial instruments typically also rely on a number of inputs that are readily observable either directly or indirectly. The only Level 3 financial instruments are warrants. The Company determined the fair value of the liability associated with its warrants to purchase 12.1 million shares of outstanding common stock using a Black-Scholes Model. See detailed discussion in Note 8—Stockholders' Equity (Deficit).

NOTE 5—PROPERTY AND EQUIPMENT

Property and equipment comprise the following (in thousands):

	December 31,	
	2015	2014
Computer and office equipment	$ 532	$ 479
Laboratory equipment	1,894	1,838
Leasehold improvements	523	548
	2,949	2,865
Less: Accumulated depreciation and amortization	(2,616)	(2,308)
Total property and equipment, net	$ 333	$ 557

Depreciation and amortization expense was $0.3 million, $0.4 million and $0.3 million for the years ended December 31, 2015, 2014 and 2013, respectively.

NOTE 6—BALANCE SHEET COMPONENTS

Accrued liabilities comprise the following (in thousands):

	December 31,	
	2015	2014
Payroll and employee related expenses	$ 593	$ 2,808
Accrued severance benefits	2,280	—
Professional services	163	331
Other accrued expenses	233	41
Total accrued liabilities	$ 3,269	$ 3,180

In December 2015, the Company adopted a plan to reduce its operating expenses, following its decision to discontinue joint development of evofosfamide under its former collaboration with Merck KGaA. The plan included a reduction of approximately 40 full-time employees in both research and development and general and administrative areas of the Company. As a result of the staffing reduction, the Company incurred severance benefits of approximately $2.5 million during the quarter ended December 31, 2015, which included approximately $0.2 million of non-cash stock compensation expense related to the extension of post-termination exercise period for the outstanding vested stock options for the affected employees. The payout of the accrued severance benefits at December 31, 2015 was completed in the first quarter of 2016.

NOTE 7—COMMITMENTS AND CONTINGENCIES

The Company leases certain of its facilities under noncancelable leases, which qualify for operating lease accounting treatment under ASC 840,*"Leases,"* and, as such, these facilities are not included on its consolidated balance sheets.

The Company had a noncancelable facility sublease agreement for 31,104 square feet of laboratory space and office space located in South San Francisco, California, which serves as the Company's corporate headquarters. The lease began on October 1, 2011 and will expire on April 30, 2017. The aggregate rent for the term of the lease is approximately $3.4 million. In addition, the lease requires the Company to pay certain taxes, assessments, fees and other costs associated with the premises, in amounts yet to be determined. The Company will also be responsible for the costs of certain tenant improvements associated with the leased space. In connection with the execution of the lease the Company paid a security deposit of approximately $60,000. In November 2013, the Company entered into a noncancelable facility lease agreement for 7,934 square feet of additional office space located in South San Francisco, California. The lease began on December 1, 2013 and would have expired on December 31, 2016. The aggregate rent for the original term of the lease was approximately $0.7 million. The Company terminated the lease for additional office space in June 2015.

As of December 31, 2015, the future rental payments required by the Company for its facility under its noncancelable operating lease were as follows (in thousands):

Years Ending December 31,		
2016	$	768
2017		260
Thereafter		—
Total	$	1,028

Rent expense for the years ended December 31, 2015, 2014 and 2013 was $0.7 million, $0.8 million and $0.6 million, respectively.

The Company's purchase commitments at December 31, 2015 were $0.9 million, which are primarily for the manufacture and testing of active pharmaceutical ingredient (API) or drug product for clinical testing.

Indemnification

The Company enters into indemnification provisions under its agreements with other companies in the ordinary course of business, including business partners, contractors and parties performing its clinical trials. Pursuant to these arrangements, the Company indemnifies, holds harmless, and agrees to reimburse the indemnified parties for losses suffered or incurred by the indemnified party as a result of the Company's activities. The duration of these indemnification agreements is generally perpetual. The maximum potential amount of future payments the Company could be required to make under these agreements is not determinable. The Company has never incurred costs to defend lawsuits or settle claims related to these indemnification agreements. As a result, the Company believes the estimated fair value of these agreements is minimal. The Company maintains commercial general liability insurance and products liability insurance to offset certain of its potential liabilities under these indemnification provisions. Accordingly, the Company has not recognized any liabilities relating to these agreements as of December 31, 2015.

The Company's bylaws provide that it is required to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of a culpable nature, to the fullest extent permissible by applicable law; and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified.

NOTE 8—STOCKHOLDERS' EQUITY (DEFICIT)

Common Stock

On August 1, 2014, the Company entered into an at market issuance sales agreement, or the MLV Sales Agreement, with MLV & Co. LLC, or MLV, which provided that, upon the terms and subject to the conditions and limitations set forth in the MLV Sales Agreement, the Company could elect to issue and sell shares of its common stock having an aggregate offering price of up to $30.0 million from time to time through MLV as the Company's sales agent. The Company did not sell any common stock under the MLV Sales Agreement.

On November 2, 2015, the Company entered into a sales agreement, with Cowen, or the Cowen Sales Agreement, which provides that, upon the terms and subject to the conditions and limitations set forth in the Cowen Sales Agreement, the Company may elect to issue and sell shares of its common stock having an aggregate offering price of up to $50.0 million from time to time through Cowen as the Company's sales agent. In connection with the Company's entry into the Cowen Sales Agreement, the Company terminated the MLV Sales Agreement. Sales of the Company's common stock through Cowen, if any, will be made on The NASDAQ Capital Market by means of ordinary brokers' transactions at market prices, in block transactions or as otherwise agreed by the Company and Cowen. Subject to the terms and conditions of the sales agreement, Cowen will use commercially reasonable efforts to sell the Company's common stock from time to time, based upon the Company's instructions (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company is not obligated to make any sales of common stock under the Cowen Sales Agreement. The Company will pay Cowen an aggregate commission rate of up to 3.0% of the gross proceeds of the sales price per share of any common stock sold under the Cowen Sales Agreement. Although the Cowen Sales Agreement remains in effect, the Cowen Sales Agreement is not currently a practical source of liquidity for the Company. In this regard, given the currently-depressed price of the Company's common stock, the Company is significantly limited in its ability to sell shares of common stock through Cowen under the Cowen Sales Agreement since the issuance and sale of common stock under the Cowen Sales Agreement, if it occurs, would be effected under a registration statement on Form S-3 that the Company filed with the Securities and Exchange Commission, and in accordance with the rules governing those registration statements, the Company generally can only sell shares of its common stock under that registration statement in an amount not to exceed one-third of the Company's public float, which limitation for all practical purposes precludes the Company's ability to obtain any meaningful funding through the Cowen Sales Agreement at this time. Even if the Company's stock price and public float substantially increases, the number of shares the Company would be able to sell under the Cowen Sales Agreement would be limited in practice based on the trading volume of the Company's common stock. The Company had not sold any common stock under the Cowen Sales Agreement as of December 31, 2015.

On February 18, 2015, the Company completed an underwritten public offering of 8.3 million shares of its common stock and accompanying warrants to purchase up to 8.3 million shares of common stock. Net proceeds from the sale of common stock and accompanying warrants, excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $28.1 million after deducting the underwriting discount and offering expenses payable by the Company.

The warrants issued in the February 2015 offering carried an initial exercise price of $10.86 per share and are exercisable through the date that is five years from the issuance date. On January 21, 2016 ("the Adjustment Date"), which was the 30th trading day following the date on which top-line efficacy data from the Company's Phase 3 clinical trial of evofosfamide plus doxorubicin versus doxorubicin alone in patients with locally advanced unresectable or metastatic soft tissue sarcoma and Phase 3 MAESTRO clinical trial of evofosfamide in combination with gemcitabine in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma was publicly announced by the Company, the warrant exercise price was adjusted to $3.62. The adjusted exercise price was based on the average of the volume-weighted average price of the Company's common stock for each of the 20 trading days immediately preceding January 21, 2016, subject to a ceiling of $10.86 and floor of $3.62. The adjusted exercise price of the warrants is also further subject to adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Company's common stock. The warrants must be exercised for cash, except that if the Company fails to maintain an effective registration statement covering the exercise of the warrants, the warrants may be exercised on a net, or cashless basis. In addition, subject to the satisfaction of certain conditions set forth in the warrants, at the Company's option, the Company has the right to force the holders of the warrants to exercise their warrants in full if the volume-weighted average price of the Company's common stock for any 20 consecutive trading-day period beginning after the 90th day following the Adjustment Date exceeds $18.00 per share.

On March 16, 2011, the Company sold to certain investors an aggregate of 14,313,081 shares of its common stock for a purchase price equal to $2.05 per share and, for a purchase price of $0.05 per share, warrants exercisable for a total of 5,725,227 shares of its common stock for aggregate gross proceeds equal to $30.1 million in connection with the offering. Net proceeds generated from the offering were approximately $27.8 million which includes underwriter discounts and estimated offering costs. The warrants have a five-year term and an exercise price equal to $2.46 per share of common stock. The number of shares issuable upon exercise of the warrants and the exercise price are subject to adjustment for subdivisions and stock splits, stock dividends, combinations, reorganizations, reclassifications, consolidations, mergers or sales of properties and assets and upon the issuance of certain assets or securities to holders of the Company's common stock, as applicable.

On October 5, 2009, the Company sold to certain investors an aggregate of 18,324,599 shares of its common stock for a purchase price equal to $1.86 per share and, for a purchase price of $0.05 per share, warrants exercisable for a total of 7,329,819 shares of its common stock for aggregate gross proceeds equal to $35.0 million in connection with the offering. Net proceeds generated from the offering were $33.1 million. The warrants had a five-year term and an exercise price equal to $2.23 per share of common stock. The exercise price of the warrants was subject to adjustment in certain circumstances, including certain issuances of securities at a price equal to less than the then current exercise price. In addition, the number of shares issuable upon exercise of the warrants and the exercise price was subject to adjustment for subdivisions and stock splits, stock dividends, combinations, reorganizations, reclassifications, consolidations, mergers or sales of properties and assets and upon the issuance of certain assets or securities to holders of the Company's common stock, as applicable. As a result of the offering on March 16, 2011, the exercise price of the warrants exercisable for a total of 7,329,819 shares of common stock sold to investors in October 2009 that had an original exercise price of $2.23 per share, was subsequently reduced to $2.05 per share pursuant to the terms of such warrants. As of October 5, 2014, all such warrants had been fully exercised.

Common Stock Warrant Valuation

The Company accounts for its common stock warrants under guidance now codified in ASC 815 that clarifies the determination of whether an instrument (or an embedded feature) is indexed to an entity's own stock, which would qualify for classification as liabilities. The guidance required the Company's outstanding warrants to be classified as liabilities and to be fair valued at each reporting period, with the changes in fair value recognized as other income (expense) in the Company's consolidated statements of operations.

In 2014, warrants to purchase 2,106,792 shares of common stock were cashless exercised for 1,108,582 shares of common stock. In addition, warrants to purchase 2,328,766 shares of common stock were exercised on a cash basis for net proceeds of approximately $4.8 million. In 2013, warrants to purchase 2,367,636 shares of common stock were cashless exercised for 1,555,043 shares of common stock. In addition, warrants to purchase 933,475 shares of common stock were exercised on a cash basis for net proceeds of approximately $1.9 million. As of the date of exercise of the warrants, the Company transferred the fair value of the warrants of approximately $10.1 million and $11.5 million from warrant liability into stockholders' equity (deficit) in 2014 and 2013, respectively.

At December 31, 2013, all warrants related to an offering in August 2008 had been exercised. During the year ended December 31, 2013, a change in fair value of $2.4 million non-cash expense related to the August 2008 warrants was recorded as other income (expense) in the Company's consolidated statements of operations.

At December 31, 2014, all warrants related to the October 2009 offering had been exercised. During the years ended December 31, 2014 and 2013, a change in fair value of $1.3 million non-cash income and $0.6 million non-cash income related to the October 2009 warrants was recorded as other income (expense) in the Company's consolidated statements of operations, respectively.

At December 31, 2015 and 2014 the Company had warrants outstanding to purchase 3,836,165 and 3,846,165 shares of common stock, respectively, from the March 2011 offering. The fair value of these warrants on December 31, 2015 and 2014 was determined using a Black Scholes valuation model with the following Level 3 inputs:

	December 31, 2015	December 31, 2014
Risk-free interest rate	0.16%	0.67%
Expected life (in years)	0.21	1.21
Dividend yield	—	—
Volatility	179%	49%
Stock price	$ 0.48	$ 3.18

During the years ended December 31, 2015, 2014 and 2013, a change in the fair value of $3.9 million of non-cash income, $8.0 million of non-cash income and $0.5 million of non-cash expense related to the March 2011 warrants was recorded as other income (expense) in the Company's consolidated statements of operations, respectively.

At both December 31, 2015 and February 18, 2015, the Company had warrants outstanding to purchase 8,300,000 shares of common stock, having an initial exercise price of $10.86 per share, which warrants were issued by the Company in the February 2015 offering. The exercise price was adjusted to $3.62 on January 21, 2016pursuant to the terms of warrant. The fair value of these warrants on December 31, 2015 and February 18, 2015 was determined using a Black Scholes valuation model and a Monte-Carlo simulation model that accounted for the estimated changes to the exercise price between the issuance date and the adjustment date, respectively. The valuation models utilized the following key level 3 inputs:

	December 31, 2015	February 18, 2015
Risk-free interest rate	1.76%	1.52%
Expected life (in years)	4.14	5.00
Dividend yield	—	—
Volatility	112%	50%
Stock price	$ 0.48	$ 4.26

During the year ended December 31, 2015, a change in fair value of $12.9 million of non-cash income related to the February 2015 warrants was recorded as other income (expense) in the Company's consolidated statements of operations.

The following table sets forth the Company's financial liabilities, related to warrants issued in the March 2011 and February 2015 offerings, subject to fair value measurements as of December 31, 2015 and 2014:

(in thousands)	Fair Value as of December 31, 2015	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
March 2011 warrants	$ 38	$ —	$ —	$ 38
February 2015 warrants	1,826	—	—	1,826
Total common stock warrants	$ 1,864	$ —	$ —	$ 1,864

(in thousands)	Fair Value as of December 31, 2014	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
March 2011 Warrants	$ 3,961	$ —	$ —	$ 3,961

The following table is a reconciliation of the warrant liability measured at fair value using level 3 inputs (in thousands):

	Warrant Liability
Balance at December 31, 2012	$ 32,558
Exercise of common stock warrants during 2013	(11,462)
Change in fair value of common stock warrants during 2013	2,325
Balance at December 31, 2013	$ 23,421
Exercise of common stock warrants during 2014	(10,116)
Change in fair value of common stock warrants during 2014	(9,344)
Balance at December 31, 2014	$ 3,961
Initial fair value of common stock warrant related to February 2015 offering	$ 14,693
Exercise of common stock warrants during 2015	(17)
Change in fair value of common stock warrants during 2015	(16,773)
Balance at December 31, 2015	$ 1,864

NOTE 9—EQUITY INCENTIVE PLANS AND STOCK BASED COMPENSATION

2004 Equity Incentive Plan

The 2004 Equity Incentive Plan ("2004 Plan") provided for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, stock awards and cash awards to employees and consultants. Stock options were granted under the 2004 Plan with an exercise price not less than 100% of the fair market value of the common stock on the date of grant. Stock options under the 2004 Plan were granted with terms of up to ten years and generally vested over a period of four years. The share reserve under the 2004 Plan was subject to automatic annual increases and on January 1, 2014 an additional 1,250,000 shares of common stock were added to the share reserve under the 2004 Plan. The 2004 Plan expired pursuant to its terms on April 7, 2014. No additional awards have been or will be made after April 7, 2014 under the 2004 Plan.

2014 Equity Incentive Plan

In May 2014, the Company adopted the 2014 Equity Incentive Plan ("2014 Plan"). The terms of the 2014 Plan provide for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, other stock awards, and performance awards that may be settled in cash, stock, or other property. Stock options may be granted under the 2014 Plan with an exercise price not less than 100% of the fair market value of the common stock on the date of grant. Stock options under the 2014 Plan may be granted with terms of up to ten years and generally vest over a period of four years, with the exception of grants to non-employee directors and consultants where the vesting period is or may be shorter. The total number of shares of the Company's common stock initially reserved for issuance under the 2014 Plan was equal to the sum of (i) 6,000,000 newly reserved shares plus (ii) up to 6,626,157 additional shares (the "Prior Plan Shares") that may be added to the 2014 Plan in connection with the forfeiture or expiration of awards outstanding under the 2004 Plan as of May 15, 2014 (the "Returning Shares"). The Prior Plan Shares will be added to the share reserve under the 2014 Plan only as and when such shares become Returning Shares.

Activity under the 2004 and 2014 Plans is set forth below:

	Shares Available for Grant	Outstanding Options		Weighted Average Exercise Price
		Number of Shares	Exercise Price	
Balances, December 31, 2012	498,411	5,098,972	$ 0.42–7.75	$ 3.18
Additional shares reserved	1,250,000	—		
Options granted	(1,663,500)	1,663,500	4.45–5.58	5.10
Options exercised	—	(145,641)	0.79–3.46	1.56
Options canceled	90,325	(90,325)	1.44–7.75	6.49
Balances, December 31, 2013	175,236	6,526,506	$ 0.42–7.75	$ 3.66
Additional shares reserved	7,250,000	—		
Shares expired	(1,286,025)	—		
Options granted	(1,895,250)	1,895,250	2.91–4.99	3.78
Options exercised	—	(73,282)	0.64–4.90	1.43
Options canceled	179,532	(179,532)	1.64–6.18	4.63
Balances, December 31, 2014	4,423,493	8,168,942	$ 0.42–7.75	$ 3.69
Additional shares reserved	—	—		
Options granted	(2,290,500)	2,290,500	0.48-5.06	4.36
Options exercised	—	(99,759)	0.79-4.90	1.75
Options canceled	1,327,547	(1,327,547)	1.30-7.75	4.39
Balances, December 31, 2015	3,460,540	9,032,136	$ 0.42–7.75	$ 3.77

At December 31, 2015, stock options outstanding and exercisable by exercise price were as follows:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$0.42-$1.38	534,650	2.20	$ 1.10	522,650	$ 1.11
$1.44-$1.44	1,331,064	4.01	$ 1.44	1,331,064	$ 1.44
$1.49-$3.46	1,428,718	4.49	$ 1.97	1,397,258	$ 1.94
$3.62-$3.62	1,164,013	7.37	$ 3.62	641,099	$ 3.62
$3.87-$5.06	2,011,782	8.03	$ 4.46	766,498	$ 4.52
$5.09-$7.75	2,561,909	5.50	$ 6.09	2,225,216	$ 6.17
$0.42-$7.75	9,032,136	5.79	$ 3.77	6,883,785	$ 3.59

The aggregate intrinsic value of options outstanding and options exercisable as of December 31, 2015 were $0 million and $0 million, respectively as the options outstanding and options exercisable at December 31, 2015were not in-the money. As of December 31, 2015, the ending options vested and expected to vest was 9.0 million and the aggregate intrinsic value of these options was $0 million. The weighted average remaining contractual life and weighted average exercise price of these options were 5.8 years and $3.77, respectively. The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the quoted price of the Company's common stock for options that were in-the-money at December 31, 2015.

The total intrinsic value of stock options exercised during the years ended December 31, 2015, 2014 and 2013 were $0.3 million, $0.2 million and $0.5 million, respectively, determined at the date of the option exercise. Cash received from stock option exercises were $0.4 million, $0.1 million and $0.1 million for the years ended December 31, 2015, 2014 and 2013, respectively. The Company issues new shares of common stock upon exercise of options. In connection with these exercises, there was no tax benefit realized by the Company due to its current loss position.

2004 Employee Stock Purchase Plan

On January 1, 2015 and 2014 an additional 100,000 shares was authorized for issuance under the 2004 Employee Stock Purchase Plan ("2004 Purchase Plan") pursuant to the annual automatic increase to the authorized shares under the 2004 Purchase Plan. The 2004 Purchase Plan contains consecutive, overlapping 24 month offering periods. Each offering period includes four six-month purchase periods. The price of the common stock purchased will be the lower of 85% of the fair market value of the common stock at the beginning of an offering period or at the end of the purchase period. For the year ended December 31, 2015, employees had purchased 154,067 shares of common stock under the 2004 Purchase Plan at an average price of $3.49. For the year ended December 31, 2014, employees had purchased 154,992 shares of common stock under the 2004 Purchase Plan at an average price of $3.74. At December 31, 2015, 126,837 shares were authorized and available for issuance under the 2004 Purchase Plan.

Stock-based Compensation

The Company recognizes stock-based compensation in accordance with ASC 718, *"Compensation—Stock Compensation."* Under this guidance, stock-based compensation cost is based on the recognition of the grant date fair value estimated in accordance with the provisions of ASC 815 over the service period, which is generally the vesting period. In addition, ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Stock-based compensation expense, which consists of the compensation cost for employee stock options and ESPP, and the value of options issued to non-employees for services rendered, was allocated to research and development and general and administrative in the consolidated statements of operations as follows (in thousands):

	Years Ended December 31,		
	2015	2014	2013
Stock-based compensation expense:			
Research and development	$ 4,090	$ 3,123	$ 2,562
General and administrative	2,711	2,365	2,360
	$ 6,801	$ 5,488	$ 4,922

Employee Stock-based Compensation Expense

Valuation Assumptions

The Company estimated the fair value of stock options granted using the Black-Scholes option-pricing formula and a single option award approach. This fair value is being amortized ratably over the requisite service periods of the awards, which is generally the vesting period. The fair value of employee stock options and employee purchase rights under the Company's 2004 Purchase Plan was estimated using the following weighted-average assumptions for the years ended December 31, 2015, 2014 and 2013:

	Years Ended December 31,		
	2015	2014	2013
Employee Stock Options			
Risk-free interest rate	1.70%	1.83%	1.14%
Expected life (in years)	5.99	5.98	5.97
Dividend yield	—	—	—
Volatility	83%	94%	101%
Weighted-average fair value of stock options granted	$ 3.06	$ 2.89	$ 4.04
Employee Stock Purchase Plan			
Risk-free interest rate	0.39%	0.20%	0.19%
Expected life (in years)	1.24	1.24	1.25
Dividend yield	—	—	—
Volatility	50%	49%	77%
Weighted-average fair value of ESPP purchase rights	$ 1.58	$ 1.60	$ 2.27

To determine the expected term of the Company's employee stock options granted, the Company utilized the simplified approach as defined by SEC Staff Accounting Bulletin No. 107, *"Share-Based Payment"*. To determine the risk-free interest rate, the Company utilized an average interest rate based on U.S. Treasury instruments with a term consistent with the expected term of the Company's stock based awards. To determine the expected stock price volatility for the Company's stock based awards, the Company considers its historical volatility and its industry peers. The fair value of all the Company's stock based awards assumes no dividends as the Company does not anticipate paying cash dividends on its common stock.

The Company recognized $6.7 million, $5.4 million and $4.8 million of stock-based compensation expense related to stock options granted and purchase rights granted under the Company's equity compensation plans, for the years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, the total unrecognized compensation cost related to unvested stock-based awards granted to employees under the Company's equity compensation plans was approximately $6.5 million before estimated forfeitures. This cost will be recorded as compensation expense ratably over the remaining weighted average requisite service period of approximately 2.4 years.

Non-employee Stock-based Compensation Expense

Stock-based compensation expense related to stock options granted to non-employees is recognized ratably, as the stock options are earned. The Company issued options to non-employees, which generally vest ratably over the time period the Company expects to receive services from the non-employee. The values attributable to these options are amortized over the service period and the unvested portion of these options was remeasured at each vesting date. The Company believes that the fair value of the stock options is more reliably measurable than the fair value of the services received. The fair value of the stock options granted were revalued at each reporting date using the Black-Scholes valuation model as prescribed by ASC 505-50 *Equity-Based Payments to Non-Employees* using the following assumptions:

	Years Ended December 31,		
	2015	2014	2013
Risk-free interest rate	2.14%	2.52%	2.51%
Expected life (in years)	10	10	10
Dividend yield	—	—	—
Expected volatility	103%	97%	100%

The stock-based compensation expense will fluctuate as the fair market value of the common stock fluctuates. In connection with the grant of stock options to non-employees, the Company recorded stock-based compensation of approximately $0.1 million, $0.1 million and $0.1 million for the years ended December 31, 2015, 2014 and 2013, respectively.

NOTE 10—INCOME TAXES

For the years ended December 31, 2015, the Company did not record an income tax provision due to net operating losses and the inability to record an income tax benefit. For the year ended December 31, 2014, the Company recorded an income tax benefit of $0.2 million, which was related to state minimum taxes recorded in the prior year. For the year ended December 31, 2013, the Company recorded an income tax provision of $0.2 million, which was related to state minimum taxes.

A reconciliation of income taxes at the statutory federal income tax rate to net income taxes included in the accompanying statements of operations is as follows (in thousands):

	2015	2014	2013
U.S. federal taxes (benefit) at statutory rate	$ 14,900	$ (7,407)	$ (9,592)
State federal income tax benefit	(448)	(571)	(1,794)
Unutilized (utilized) net operating losses	(11,287)	9,809	9,747
Stock-based compensation	898	730	486
Research and development credits	(3,135)	(952)	(1,416)
Tax assets not benefited	4,732	1,322	1,926
Nondeductible warrant expense	(5,703)	(3,177)	790
Other	43	44	55
Total	$ —	$ (202)	$ 202

The tax effects of temporary differences that give rise to significant components of the net deferred tax assets are as follows (in thousands):

	December 31,	
	2015	2014
Capitalized start-up costs	$ 103	$ 128
Net operating loss carryforwards	47,725	33,049
Research and development credits	11,354	6,616
Deferred stock compensation	5,130	3,933
Deferred revenue	0	26,151
Other (accruals, reserves, depreciation)	359	1,019
Total deferred tax assets	64,671	70,896
Less: Valuation allowance	(64,671)	(70,896)
Net deferred tax assets	$ —	$ —

At December 31, 2015, the Company had federal and state net operating loss carryforwards of approximately $124 million and $95 million, respectively, available to offset future taxable income. The Company's federal and state net operating loss carryforwards will begin to expire in 2021 and 2016, respectively, if not used before such time to offset future taxable income or tax liabilities. For federal and state income tax purposes, a portion of the Company's net operating loss carryforward is subject to certain limitations on annual utilization in case of changes in ownership, as defined by federal and state tax laws. The annual limitation may result in the expiration of the net operating loss before utilization.

The net operating loss deferred tax asset balance as of December 31, 2015 includes $0.5 million of excess tax benefits from stock option exercises. Stockholders' equity (deficit) will be credited if and when such excess tax benefits are ultimately realized.

At December 31, 2015, the Company had federal research and development tax credits of approximately $8.4 million, which expire in the year beginning 2022, and state research and development tax credits of approximately $5.5 million, which have no expiration date.

The Company has established a valuation allowance against its deferred tax assets due to the uncertainty surrounding the realization of such assets. The valuation allowance decreased by $6.2 million for the year ended December 31, 2015 and increased by $7.8 million and by $11.6 million for the years ended December 31, 2014 and 2013, respectively.

The Company adopted ASC Topic 740-10-50 "*Accounting for Uncertainty of Income Taxes*" ("ASC Topic 740-10-50"), on January 1, 2007. The Company does not believe that its unrecognized tax benefits will change over the next twelve months.

The following table summarizes the activity related to the Company's gross unrecognized tax benefits:

(in thousands)	2015	2014
Gross unrecognized tax benefits at January 1,	$ 1,100	$ 1,100
Gross increases (decreases) related to prior year tax positions	—	—
Gross increases (decreases) related to current year tax positions	—	—
Settlements	—	—
Expiration of the statute of limitations for the assessment of taxes	—	—
Gross unrecognized tax benefits at December 31,	$ 1,100	$ 1,100

The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. As of December 31, 2015 and 2014, the Company had no accrued interest or penalties due to the Company's net operating losses available to offset any tax adjustment. The Company currently has no federal or state tax examinations in progress nor has it had any federal or state tax examinations since its inception. As a result of the Company's net operating loss carryforwards, all of its tax years are subject to federal and state tax examination.

NOTE 11—EMPLOYEE BENEFIT PLAN

In November 2002, the Company implemented a 401(k) plan to provide a retirement savings program for the employees of the Company. The 401(k) plan is maintained for the exclusive purpose of benefiting the 401(k) plan participants. The 401(k) plan is intended to operate in accordance with all applicable state and federal laws and regulations and, to the extent applicable, the provisions of Department of Labor regulations issued pursuant to ERISA Section 404(c). As of December 31, 2015, the Company has not made any contributions to the 401(k) plan.

NOTE 12—QUARTERLY FINANCIAL DATA (UNAUDITED)

The following table presents certain unaudited quarterly financial information for the eight quarters ended December 31, 2015. This information has been prepared on the same basis as the audited consolidated financial statements and includes all adjustments necessary to state fairly the unaudited quarterly results of operations. Net loss per common share, basic and diluted for the four quarters of each fiscal year, may not sum to the total for the fiscal year because of the different weighted average number of shares outstanding in each of the periods.

2015	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
(in thousands, except per share data)				
Revenue	$ 3,681	$ 3,680	$ 3,680	$ 65,874
Net income (loss)	$ (11,154)	$ (8,306)	$ (6,431)	$ 69,713
Net income (loss) per common share				
Basic	$ (0.17)	$ (0.12)	$ (0.09)	$ 0.98
Diluted	$ (0.17)	$ (0.12)	$ (0.09)	$ 0.86

2014	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
(in thousands, except per share data)				
Revenue	$ 3,681	$ 3,680	$ 3,680	$ 3,681
Net income (loss)	$ (7,109)	$ (766)	$ (7,745)	$ (5,964)
Net income (loss) per common share				
Basic	$ (0.12)	$ (0.01)	$ (0.13)	$ (0.09)
Diluted	$ (0.14)	$ (0.12)	$ (0.15)	$ (0.12)

NOTE 13—SUBSEQUENT EVENTS

On March 10, 2016, Merck KGaA and the Company agreed to terminate the global license and co development agreement, or License Agreement, pursuant to a termination agreement, or the Termination Agreement. Under the terms of the Termination Agreement, all rights under the License Agreement were returned to the Company, as well as all rights to Merck KGaA technology developed under the License Agreement. See Note 3, "Collaboration Arrangement" for a further discussion.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We conducted an evaluation as of December 31, 2015, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures, which are defined under SEC rules as 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 under the Securities Exchange Act of 1934 (Exchange Act) is recorded, processed, summarized and reported within required time periods and that the information accumulated and communicated to our management, including our principal executive officer and principal financial officer is appropriate, to allow timely decisions, regarding required disclosure. Based upon that evaluation, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) of the Exchange Act. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Under the supervision and with the participation of our management, including our principal executive officer and our principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in the *Internal Control—Integrated Framework* (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management's assessment included evaluation of such elements as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment. Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2015.

Our independent registered public accounting firm, Ernst & Young LLP, has audited our internal control over financial reporting as of December 31, 2015. Their attestation report on the audit of our internal control over financial reporting is included below.

Limitations on the Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefit of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected. 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.

Changes in Internal Controls over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the fourth quarter of the year ended December 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Threshold Pharmaceuticals, Inc.

We have audited Threshold Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria.) Threshold Pharmaceuticals, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

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

In our opinion, Threshold Pharmaceuticals, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Threshold Pharmaceuticals, Inc. as of December 31, 2015 and 2014, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2015 of Threshold Pharmaceuticals, Inc. and our report dated March 10, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Jose, California
March 10, 2016

ITEM 9B. OTHER INFORMATION

Termination of License Agreement; Entry into Termination Agreement and Reversion ofEvofosfamide Rights

On March 10, 2016 (the "Effective Date"), we and Merck KGaA entered into a termination agreement (the "Termination Agreement") pursuant to which we and Merck KGaA mutually agreed to terminate the license and co-development agreement between us and Merck KGaA, dated February 2, 2012 as amended (the "License Agreement"). Under the terms of the License Agreement, Merck KGaA was granted co-development rights and exclusive global commercialization rights with respect to evofosfamide, and we were granted an option to co-commercialize evofosfamide in the United States. In exchange, we received an upfront payment of $25 million and were eligible to receive up to a total of $525 million in milestone payments and tiered, double-digit royalties on net sales of evofosfamide. Under the License Agreement, we and Merck KGaA were jointly developing evofosfamide, with Merck KGaA paying 70% of worldwide development costs for evofosfamide. Under the terms of the Termination Agreement, all rights under the License Agreement were returned to Threshold as of the Effective Date, as well as all rights to Merck KGaA technology developed under the License Agreement. A brief description of the material terms of the Termination Agreement is provided under "Item 1. Business" of this Annual Report on Form 10-K under the caption "License and Development Agreements—Agreements with Merck KGaA" and is incorporated into this Item 9B by reference. There were no material relationships between us and Merck KGaA and our respective affiliates prior to the termination of the License Agreement and the entry into of the Termination Agreement other than in respect of the License Agreement.

PART III

The information required by Part III is omitted from this report because we will file a definitive proxy statement within 120 days after the end of our 2015 fiscal year pursuant to Regulation 14A for our 2016 Annual Meeting of Stockholders, or the 2016 Proxy Statement, will be filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended. If the 2016 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item will be contained in the 2016 Proxy Statement and is hereby incorporated by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item will be contained in the 2016 Proxy Statement and is hereby incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item will be contained in the 2016 Proxy Statement and is hereby incorporated by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item will be contained in the 2016 Proxy Statement and is hereby incorporated by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item will be contained in the 2016 Proxy Statement and is hereby incorporated by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following documents are being filed as part of this report:

(1) The following financial statements of the Company and the report of Ernst & Young LLP are included in Part II, Item 8:

Report of Independent Registered Public Accounting Firm
Consolidated Balance Sheets
Consolidated Statements of Operations and Comprehensive Loss
Consolidated Statements of Stockholders' Equity (Deficit)
Consolidated Statements of Cash Flows
Notes to Consolidated Financial Statements

(2) All financial statement supporting schedules are omitted because the information is inapplicable or presented in the Notes to Consolidated Financial Statements.

(3) A list of exhibits filed with this report or incorporated herein by reference is found in the Exhibit Index immediately following the signature page of this Annual Report.

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.

THRESHOLD PHARMACEUTICALS, INC.

March 10, 2016

By: /s/ HAROLD E. SELICK, PH.D.
Harold E. Selick, Ph.D.
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Harold E. Selick, Ph.D. and Joel A. Fernandes, and each of them, with full power to act without the other, such person's true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Form 10-K, and to file the same, with exhibits and schedules thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities and 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/ HAROLD E. SELICK, PH.D. **Harold E. Selick, Ph.D.**	Chief Executive Officer (principal executive officer)	March 10, 2016
/s/ JOEL A. FERNANDES **Joel A. Fernandes**	Vice President, Finance and Controller (principal financial and accounting officer)	March 10, 2016
/s/ JEFFREY W. BIRD, M.D., PH.D. **Jeffrey W. Bird, M.D., Ph.D.**	Director	March 10, 2016
/s/ BRUCE C. COZADD **Bruce C. Cozadd**	Director	March 10, 2016
/s/ DAVID R. HOFFMANN **David R. Hoffmann**	Director	March 10, 2016
/s/ WILFRED E. JAEGER, M.D. **Wilfred E. Jaeger, M.D.**	Director	March 10, 2016
/s/ GEORGE G. C. PARKER, PH.D. **George G. C. Parker, Ph.D.**	Director	March 10, 2016
/s/ DAVID R. PARKINSON, M.D. **David R. Parkinson, M.D.**	Director	March 10, 2016

EXHIBIT INDEX

EXHIBIT NUMBER	DESCRIPTION
3.1	Amended and Restated Certificate of Incorporation of the Registrant, as subsequently amended (incorporated by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K (File No. 001-32979) filed on March 6, 2014)
3.2	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.4 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-114376), filed on April 9, 2004)
4.1	Specimen Certificate evidencing shares of common stock (incorporated by reference to Exhibit 4.1 to Amendment No. 6 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-114376), filed on January 28, 2005)
4.2	Preferred Shares Rights Agreement, dated as of August 8, 2006, by and between Registrant and Mellon Investor Services LLC (incorporated by reference to Exhibit 4.5 to the Registrant's Current Report on Form 8-K (File No. 000-51136) filed on August 9, 2006)
4.3	Form of Rights Certificate (incorporated by reference to Exhibit 4.6 to the Registrant's Current Report on Form 8-K (File No. 000-51136) filed on August 9, 2006)
4.4	Amendment to Rights Agreement, dated as of July 10, 2008, between the Registrant and Mellon Investor Services LLC (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on July 14, 2008)
4.5	Second Amendment to Rights Agreement, dated as of September 29, 2009, between the Registrant and Mellon Investor Services LLC (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on September 30, 2009)
4.6	Third Amendment to Rights Agreement, dated as of March 11, 2011, between the Registrant and Mellon Investor Services LLC (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on March 11, 2011)
4.7	Form of Warrant issued pursuant to the Registrant's prospectus supplement, dated March 11, 2011, and accompanying prospectus (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on March 11, 2011)
4.9*	Form of Warrant issued pursuant to the Registrant's prospectus supplement, dated February 11, 2015, and accompanying prospectus (incorporated by reference to Exhibit 4.9 to the Registrant's Annual Report on Form 10-K (File No. 001-32979) filed on March 3, 2015)
10.1+	2004 Amended and Restated Equity Incentive Plan of the Registrant, as amended (incorporated by reference to Exhibit 10.2 to the Registrant's Annual Report on Form 10-K (File No. 001-32979) filed on March 15, 2012)
10.2+	2004 Employee Stock Purchase Plan of the Registrant As Amended and Restated Effective May 22, 2009 (incorporated by reference to Exhibit 99.2 to the Registrant's Registration Statement on Form S-8 (File No. 333-164865) filed on February 11, 2010)
10.3+	Form of Indemnification Agreement by and between the Registrant and its officers and directors (incorporated by reference to Exhibit 10.9 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-114376), filed on December 6, 2004)
10.4+	Form of Notice of Grant of Stock Options and Option Agreement under the 2004 Equity Incentive Plan (incorporated by reference to Exhibit 10.25 (File No. 000-51136) to the Registrant's Current Report on Form 8-K filed on March 17, 2006)
10.5+	2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on May 21, 2014).
10.6+	Form of Stock Option Grant Notice and Option Agreement for employees under the 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on May 21, 2014).
10.7+	Form of Stock Option Grant Notice and Option Agreement for non-employee directors under the 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on May 21, 2014).

10.8+	Offer Letter by and between the Registrant and Joel A. Fernandes dated November 1, 2007 (incorporated by reference to Exhibit 10.36 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on November 2, 2007)
10.9	Form of Securities Purchase Agreement, dated July 9, 2008, by and among the Registrant and the investors party thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on July 14, 2008)
10.10	Form of Securities Purchase Agreement dated as of September 29, 2009 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K (File No. 001-32979) filed on September 30, 2009)
10.11+	Form of Amended and Restated Change of Control Severance Agreement for employees at the Senior Vice President level and above (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on April 12, 2012)
10.12+	Change of Control Severance Agreement by and between the Registrant and Tillman E. Pearce, dated as of April 9, 2012, (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 001-32979) filed on April 12, 2012)
10.13+	Change of Control Severance Agreement by and between the Registrant and Stewart M. Kroll dated April 9, 2012 (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K (File No. 001-32979) filed on April 12, 2012)
10.14+	Form of Change of Control Severance Agreement for employees at the Vice President level (incorporated by reference to Exhibit 4.9 to the Registrant's Annual Report on Form 10-K (File No. 001-32979) filed on March 3, 2015)
10.15†	Exclusive License Agreement, effective as of October 5, 2009, by and between the Registrant and Eleison Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (File No. 001-32979) filed on March 8, 2010)
10.16†	License and Co-Development Agreement between the Registrant and Merck KGaA, dated February 2, 2012 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-32979), filed on August 6, 2012)
10.17†	Amendment to License and Co-Development Agreement between the Registrant and Merck KGaA, dated December 2, 2013 (incorporated by reference to Exhibit 10.11 to the Registrant's Annual Report on Form 10-K (File No. 001-32979) filed on March 6, 2014)
10.18	Sales Agreement between the Registrant and Cowen and Company, LLC, dated November 2, 2015 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-32979), filed on November 2, 2015)
10.19	Sublease by and between the Registrant and Exelixis, Inc. dated as of July 25, 2011 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-32979), filed on November 3, 2011)
10.20+	Advisory Board Agreement by and between the Registrant and David R. Parkinson, M.D. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-32979), filed on May 1, 2014)
10.21+	Non-Employee Director Compensation Policy, adopted by the Board of Directors of the Registrant on March 20, 2014 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-32979), filed on May 1, 2014)
10.22+	Change of Control Severance Agreement by and between the Registrant and Nipun Davar, dated as of June 5, 2015 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-32979), filed on July 30, 2015)
12.1*	Statement of Computation of Ratio of Earnings to Fixed Charges and Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends
23.1*	Consent of Independent Registered Public Accounting Firm
24.1*	Power of Attorney (included on the signature page hereto).
31.1*	Certification of Principal Executive Officer Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act of 1934, as amended, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

31.2*	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act of 1934, as amended, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2**	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

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* Filed herewith.

† Confidential treatment [requested or] granted as to certain portions, which portions have been omitted and filed separately with the SEC.

+ Indicates a management contract or compensatory plan or arrangement.

** Furnished herewith. This certification is not deemed filed for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and is not deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act.

Exhibit 12.1

Computation of Ratio of Earnings to Fixed Charges and Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends

	Year Ended December 31,				
	2011	2012	2013	2014	2015
Earnings:					
Income (loss) before income taxes	$ (25,653)	$ (71,135)	$ (28,213)	$ (21,786)	$ 43,822
Add Fixed Charges (from below)	329	225	187	250	221
Total income (loss) to cover fixed charges	(25,324)	(70,910)	(28,026)	(21,536)	43,601
Fixed Charges:					
Interest expense	—	—	—	—	—
Interest component of rent expense[1]	329	225	187	250	221
Total fixed charges	329	225	187	250	221
Ratio of earnings to fixed charges[2]	N/A[3]	N/A[3]	N/A[3]	N/A[3]	227

(1) Represents the estimated portion of rental expense from operating leases that is considered by us to be representative of interest.

(2) We have not had any preferred stock outstanding during the periods presented; therefore, the ratio of earnings to (and the deficiency of earnings available to cover) combined fixed charges and preferred stock dividends is the same as our ratio of earnings to (and the deficiency of earnings available to cover) fixed charges alone.

(3) Earnings were insufficient to cover fixed charges for this period. The amount of the coverage deficiency was $25.7 million, $71.1 million, $28.2 million and $21.8 million for the years ended December 31, 2011, 2012, 2013, and 2014, respectively.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-303043, No. 333-207745, No. 333-195084, No. 333-169689, 333-162719 and 333-153475) and Registration Statements on Form S-8 (No. 333-202476,No. 333-196249, No. 333-187107, 333-180149, No. 333-173047, No. 333-167260, No. 333-164865, No. 333-156733, No. 333-126276, No. 333-134598, and No. 333-143130) pertaining to the 2014 Equity Incentive Plan, the Amended and Restated 2004 Equity Incentive Plan, the 2004 Equity Incentive Plan, the Amended and Restated 2004 Employee Stock Purchase Plan and the 2004 Employee Stock Purchase Plan of Threshold Pharmaceuticals, Inc. of our reports dated March 10, 2016, with respect to the consolidated financial statements of Threshold Pharmaceuticals, Inc. and the effectiveness of internal control over financial reporting of Threshold Pharmaceuticals, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2015.

/s/ Ernst & Young LLP

San Jose, California
March 10, 2016

Exhibit 31.1

Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Harold E. Selick, certify that:

1. I have reviewed this Annual Report on Form 10-K of Threshold Pharmaceuticals, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 10, 2016

/s/ HAROLD E. SELICK, PH.D.
Harold E. Selick, Ph.D.
Chief Executive Officer

Exhibit 31.2

Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Joel A. Fernandes, certify that:

1. I have reviewed this Annual Report on Form 10-K of Threshold Pharmaceuticals, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 10, 2016

/s/ JOEL A. FERNANDES
Joel A. Fernandes
Vice President, Finance and Controller
(Principal Financial Officer)

Exhibit 32.1

Threshold Pharmaceuticals, Inc

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

In connection with the Annual Report of Threshold Pharmaceuticals, Inc (the "Company") on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Harold E. Selick, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

Date: March 10, 2016

/s/ Harold E. Selick, Ph.D.
Harold E. Selick, Ph.D.
Chief Executive Officer

Exhibit 32.2

Threshold Pharmaceuticals, Inc

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

In connection with the Annual Report of Threshold Pharmaceuticals, Inc (the "Company") on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joel A. Fernandes, Vice President, Finance and Controller of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

Date: March 10, 2016

/s/ Joel A. Fernandes
Joel A. Fernandes
Vice President, Finance and Controller
(Principal Financial Officer)