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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549

FORM 10-Q

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

For the quarterly period ended March 31, 2014

or

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

For the transition period from_____ to _____

Commission File Number: 001-32979

Threshold Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**94-3409596**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

170 Harbor Way, Suite 300, South San Francisco, CA 94080
(Address of principal executive offices, including zip code)

(650) 474-8200
(Registrant's telephone number, including area code)

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 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.

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 ☒

On April 25, 2014, there were 59,346,233 shares of common stock, par value $0.001 per share, of Threshold Pharmaceuticals, Inc. outstanding.

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Threshold Pharmaceuticals, Inc.

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FORM 10-Q
THREE MONTHS ENDED MARCH 31, 2014

The terms "Threshold," "we," "us," "the Company" and "our" as used in this report 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 quarterly report on Form 10-Q are the property of their respective owners.

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Threshold Pharmaceuticals, Inc.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)
(unaudited)

	March 31, 2014	December 31, 2013 (Note 1)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 6,743	$ 7,279
Marketable securities, current	65,250	58,390
Collaboration receivable	5,192	18,094
Prepaid expenses and other current assets	1,311	2,246
Total current assets	78,496	86,009
Marketable securities, non-current	14,393	16,364
Property and equipment, net	632	686
Other assets	1,159	1,059
Total assets	$ 94,680	$ 104,118
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	$ 4,006	$ 1,689
Accrued clinical and development expenses	5,492	7,444
Accrued liabilities	3,962	3,161
Deferred revenue, current	14,722	14,722
Total current liabilities	28,182	27,016
Warrant liability	21,964	23,421
Deferred revenue, non-current	73,235	76,916
Deferred rent	287	240
Total liabilities	123,668	127,593
Commitments and contingencies (Note 7)		
Stockholders' equity (deficit):		
Preferred stock, $0.001 par value, 2,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.001 par value, shares authorized: 150,000,000 shares; issued and outstanding: 59,346,025 shares at March 31, 2014 and 59,232,611 shares at December 31, 2013	59	59
Additional paid-in capital	329,727	328,116
Accumulated other comprehensive gain (loss)	13	28
Accumulated deficit	(358,787)	(351,678)
Total stockholders' equity (deficit)	(28,988)	(23,475)
Total liabilities and stockholders' equity (deficit)	$ 94,680	$ 104,118

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

Threshold Pharmaceuticals, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except per share data)
(unaudited)

	Three Months Ended March 31,	
	2014	2013
Revenue	$ 3,681	$ 2,922
Operating expenses:		
Research and development	9,653	6,468
General and administrative	2,634	2,515
Total operating expenses	12,287	8,983
Loss from operations	(8,606)	(6,061)
Interest income (expense), net	40	36
Other income (expense), net	1,457	(3,116)
Loss before provision for income taxes	(7,109)	(9,141)
Provision for income taxes	—	73
Net loss	(7,109)	(9,214)
Other comprehensive income (loss):		
Unrealized gain (loss) on available-for sale securities	(15)	(5)
Comprehensive loss	$ (7,124)	$ (9,219)
Net loss per common share:		
Basic	$ (0.12)	$ (0.16)
Diluted	$ (0.14)	$ (0.16)
Weighted average number of shares used in per common share calculations:		
Basic	59,303	56,486
Diluted	61,300	56,486

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

Threshold Pharmaceuticals, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Three Months Ended March 31,	
	2014	2013
Cash flows from operating activities:		
Net loss	$ (7,109)	$ (9,214)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	390	316
Stock-based compensation expense	1,266	1,053
Change in common stock warrant value	(1,457)	3,116
Changes in operating assets and liabilities:		
Collaboration receivable	12,902	8,982
Prepaid expenses and other assets	835	5
Accounts payable	2,317	1,446
Accrued clinical and development expenses	(1,952)	(126)
Accrued liabilities	801	833
Deferred rent	47	(5)
Deferred revenue	(3,681)	27,078
Net cash provided by operating activities	4,359	33,484
Cash flows from investing activities:		
Acquisition of property and equipment	(24)	(14)
Acquisition of marketable securities	(22,349)	(46,407)
Proceeds from sale of marketable securities	3,109	—
Proceeds from maturities of marketable securities	14,024	22,088
Net cash used in investing activities	(5,240)	(24,333)
Cash flows from financing activities:		
Proceeds from issuance of common stock and warrants, net of offering expenses	345	175
Net cash provided by financing activities	345	175
Net increase (decrease) in cash and cash equivalents	(536)	9,326
Cash and cash equivalents, beginning of period	7,279	11,029
Cash and cash equivalents, end of period	$ 6,743	$ 20,355

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

Threshold Pharmaceuticals, Inc.
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

Threshold Pharmaceuticals, Inc. (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.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the annual consolidated financial statements. In the opinion of management, all adjustments, consisting of normal recurring adjustments necessary for the fair statement of results for the periods presented, have been included. The results of operations of any interim period are not necessarily indicative of the results of operations for the full year or any other interim period.

The preparation of condensed consolidated financial statements requires management to make estimates and assumptions that affect the recorded amounts reported therein. A change in facts or circumstances surrounding the estimate could result in a change to estimates and impact future operating results.

The unaudited condensed consolidated financial statements and related disclosures have been prepared with the presumption that users of the interim unaudited condensed consolidated financial statements have read or have access to the audited consolidated financial statements for the preceding fiscal year. The condensed consolidated balance sheet at December 31, 2013 has been derived from the audited financial statements at that date but does not include all the information and footnotes required by accounting principles generally accepted in the United States of America. Accordingly, these unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2013 included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 6, 2014.

The unaudited condensed consolidated financial statements 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 are related to its collaboration arrangement with Merck KGaA, which was entered in February 2012. The collaboration with Merck KGaA provides 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 receives reimbursement for Merck KGaA's 70% share for eligible worldwide development expenses for TH-302. Such reimbursement is reflected as a reduction of operating expenses.

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 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. The Company determines 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.

Deferred revenue associated with a non-refundable payment received under a collaborative agreement for which the 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 arrangements. See Note 3, "Collaboration Arrangements," for analysis of milestone events deemed to be substantive or non-substantive.

NOTE 2 — NET LOSS PER COMMON SHARE

Basic net loss per common share is computed by dividing net loss by the weighted-average number of common shares outstanding during the period. Diluted net 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 exercise price 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):

	Three Months Ended March 31,	
	2014	2013
Numerator:		
Net loss-basic	$ (7,109)	$ (9,214)
Less: noncash income from change in fair value of common stock warrants	1,757	—
Net loss-diluted	$ (8,866)	$ (9,214)
Denominator:		
Weighted average common shares outstanding	59,303	56,486
Dilutive effect of warrants	1,997	—
Weighted-average common shares outstanding and potential dilutive common shares — diluted	61,300	56,486
Net loss per share		
Basic	$ (0.12)	$ (0.16)
Diluted	$ (0.14)	$ (0.16)

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

	As of March 31,	
	2014	2013
Shares issuable upon exercise of warrants	4,288	11,573
Shares issuable upon exercise of stock options	6,656	6,481
Shares issuable related to the ESPP	31	48

NOTE 3 — COLLABORATION ARRANGEMENTS

On February 3, 2012, the Company entered into a global license and co-development agreement with Merck KGaA, Darmstadt, Germany, to co-develop and commercialize TH-302, the Company's small molecule hypoxia-targeted drug. Under the terms of the agreement, Merck KGaA received co-development rights, exclusive global commercialization rights and provided the Company with an option to co-commercialize TH-302 in the United States. To date the Company received $110 million in upfront and milestone payments, including $12.5 million received during the quarter ended March 31, 2014. 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. The Company is eligible to earn additional potential milestone payments of up to $100 million in regulatory and development milestones, and $340 million in commercialization milestones.

In the United States, the Company has primary responsibility for development of TH-302 in the soft tissue sarcoma indication. The Company and Merck KGaA will jointly develop TH-302 in all other cancer indications being pursued. Merck KGaA will pay 70% of worldwide development expenses for TH-302. Subject to FDA approval in the United States, Merck KGaA will initially be responsible for commercialization of TH-302 with the Company receiving a tiered, double-digit royalty on sales. Under the royalty bearing portion of the agreement, Threshold retains the option to co-promote TH-302 in the United States. Additionally, the Company retains the option to co-commercialize TH-302 in the United States, upon the achievement of certain sales and regulatory milestones, allowing the Company to

participate in up to 50% of the profits in the United States depending on total sales. Outside of the United States, Merck KGaA will be solely responsible for the commercialization of TH-302 with the Company receiving a tiered, double digit royalty on sales in these territories. The agreement will continue on a country-by-country and product-by-product basis until the later of the last to expire patent covering such product containing TH-302 in such country or ten years following the commercial launch of a product containing TH-302 in such country, unless terminated earlier. Merck KGaA has the right to terminate the agreement on limited notice to the Company, and each party has the right to terminate the agreement following an uncured material breach by the other party.

The Company's deliverables under the Merck KGaA agreement, which include delivery of the rights and license for TH-302 and performance of research and development activities, have been determined to be a single unit of accounting. The delivered license does 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 global license and co-development agreement, which is required for Merck KGaA to fully realize the value from the delivered license. Therefore, the revenue relating to this unit of accounting will be recorded as deferred revenue and recognized over the estimated performance period under the agreement, which is the product development period. The Company has recorded $110 million of the upfront payment and milestones payments as deferred revenue and is amortizing them ratably over its estimated period of performance, which the Company currently estimates to end on March 31, 2020. As a result, the Company recognized $3.7 million and $2.9 million of revenue during the three months ended March 31, 2014 and 2013, respectively. The Company will periodically review and, if necessary, revise the estimated periods of performance of our collaboration. The Company also earned a $5.9 million and $3.5 million reimbursement for eligible worldwide development expenses for TH-302 from Merck KGaA during the three months ended March 31, 2014 and 2013, respectively. Such earned reimbursement has been reflected as a reduction of operating expenses.

Of the remaining potential future milestones, $100 million are related to regulatory and development milestones and $340 million are related to commercialization milestones that may be received under the Merck KGaA Agreement. Regulatory milestones include the filing and acceptance of regulatory applications for marketing approval in major markets. Development milestones include primarily the initiation of various phases of clinical trials. Commercialization milestones include the achievement of first commercial sales in a particular market or annual product sales in excess of a pre-specified threshold. At the inception of the collaboration agreement the Company assessed regulatory and development milestones to be substantive where there was substantive scientific and regulatory uncertainty of achievement, the amounts of payments assigned were considered to be commensurate with the enhancement that occurred subsequent to inception of the Merck KGaA agreement, of the value of the delivered rights and license of TH-302 and the Company's performance is necessary to the achievement of the milestone. Accordingly, the Company will recognize payments related to the achievement of such milestones, if any, when such milestone is achieved. Regulatory and development milestones that do not meet these conditions were considered non-substantive and payments related to the achievement of such milestones, if any, will be recorded as deferred revenue and amortized ratably over the estimated period of performance. Final determination of whether a development or regulatory milestone is substantive will depend upon the Company's role in achieving the milestone. The specific role and responsibilities related to the regulatory and development activities for certain of these milestones have yet to be determined and may change during the development period. Under the Merck KGaA agreement, Merck KGaA will initially be responsible for commercialization activities and the Company initially may not be involved in the achievement of these commercialization milestones. These commercialization milestones would typically be achieved after the completion of the Company's regulatory and development activities. If there are no future development obligations, the Company expects to account for the commercialization milestones in the same manner as royalties, with revenue recognized upon achievement of the milestone.

NOTE 4— STOCKHOLDERS' EQUITY

Common Stock Warrants

The Company accounts for its common stock warrants under guidance 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.

At both March 31, 2014 and December 31, 2013, the Company had warrants outstanding to purchase 4,287,940 shares of common stock, having an exercise price of $2.05 per share, which warrants were initially issued by us in a private placement in October 2009. The fair value of these warrants on March 31, 2014 and December 31, 2013 was determined using a Black Scholes valuation model with the following level 3 inputs:

	March 31, 2014	December 31, 2013
Risk-free interest rate	0.13%	0.13%
Expected life (in years)	0.52	0.76
Dividend yield	—	—
Volatility	44%	49%
Stock price	$ 4.76	$ 4.67

During the three months March 31, 2014 the change in fair value of $0.3 million related to the October 2009 warrants was recorded as other expense in the Company's condensed consolidated statement of operations.

At both March 31, 2014 and December 31, 2013, the Company had also warrants outstanding to purchase 3,993,783 shares of common stock, having an exercise price of $2.46 per share, which warrants were initially issued by us in an underwritten public offering in March 2011. The fair value of these warrants on March 31, 2014 and December 31, 2013 was determined using a Black Scholes valuation model with the following level 3 inputs:

	March 31, 2014	December 31, 2013
Risk-free interest rate	0.44%	0.78%
Expected life (in years)	1.96	2.21
Dividend yield	—	—
Volatility	55%	88%
Stock price	$ 4.76	$ 4.67

During the three months ended March 31, 2014, the change in fair value of $1.8 million related to the March 2011 warrants was recorded as other income in the Company's consolidated statement of operations.

The following table sets forth the Company's financial liabilities, related to warrants issued in the October 2009 and March 2011offerings, subject to fair value measurements as of March 31, 2014 and December 31, 2013:

	Fair Value as of March 31,	Basis of Fair Value Measurements		
(in thousands)	2014	Level 1	Level 2	Level 3
October 2009 warrants	$ 11,620	$ —	$ —	$ 11,620
March 2011 warrants	10,344	—	—	10,344
Total common stock warrants	$ 21,964	$ —	$ —	$ 21,964

	Fair Value as of December 31,	Basis of Fair Value Measurements		
(in thousands)	2013	Level 1	Level 2	Level 3
October 2009 warrants	$ 11,320	$ —	$ —	$ 11,320
March 2011 warrants	12,101	—	—	12,101
Total common stock warrants	$ 23,421	$ —	$ —	$ 23,421

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, 2013	$ 23,421
Change in fair value of common stock warrants during three months ended March 31, 2014	(1,457)
Exercise of warrants during three months ended March 31, 2014	—
Balance at March 31, 2014	$ 21,964

NOTE 5— STOCK BASED COMPENSATION

The Company recognizes stock-based compensation in accordance with ASC 718, *"Compensation—Stock Compensation."* Stock-based compensation expense, which consists of the compensation cost for employee stock options and the Company's 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 unaudited condensed consolidated statements of operations as follows (in thousands):

	Three Months Ended March 31,	
	2014	2013
Research and development	$ 671	$ 534
General and administrative	595	519
	$ 1,266	$ 1,053

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 ESPP was estimated using the following weighted-average assumptions for the three months ended March 31, 2014 and 2013:

	Three Months Ended March 31,	
	2014	2013
Employee Stock Options:		
Risk-free interest rate	1.90%	1.15%
Expected term (in years)	6.04	6.02
Dividend yield	—	—
Volatility	96%	101%
Weighted-average fair value of stock options granted	$ 3.84	$ 4.01

	Three Months Ended March 31,	
	2014	2013
Employee Stock Purchase Plan (ESPP):		
Risk-free interest rate	0.18%	0.20%
Expected term (in years)	1.23	1.25
Dividend yield	—	—
Volatility	53%	92%
Weighted-average fair value of stock options granted	$ 1.79	$ 2.44

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"* ("SAB 107"). 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 utilized the historical volatilities of the Company. 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.

Employee Stock-based Compensation Expense

As required by ASC 718, the Company recognized $1.2 million and $1.0 million of stock-based compensation expense related to stock options and purchase rights, under the Company's stock option plans and ESPP, for the three months ended March 31, 2014 and 2013, respectively. As of March 31, 2014, the total unrecognized compensation cost related to unvested stock-based awards granted to employees under the Company's stock option plans was approximately $9.8 million before forfeitures. This cost will be recorded as compensation expense on a straight-line basis over the remaining weighted average requisite service period of approximately 2.3 years.

Non-employee Stock-based Compensation Expense

The Company accounts for equity instruments issued to non-employees in accordance with ASC 505,*"Equity."* The equity instruments consisting of stock options are valued using the Black-Scholes option pricing model. The values attributable to these options are amortized over the service period and the unvested portion of these options is remeasured at each vesting date. In connection with the grant of stock options to non-employees, the Company recorded stock-based compensation of approximately $36,000 and $35,000 for the three months ended March 31, 2014 and 2013, respectively.

Equity Incentive Plans

2004 Equity Incentive Plan On January 1, 2014, an additional 1,250,000 shares was authorized for issuance under the 2004 Equity Incentive Plan ("2004 Incentive Plan"), pursuant to the annual automatic increase to the authorized shares under the 2004 Incentive Plan. At March 31, 2014, 1,256,173 shares were authorized and available for issuance under the 2004 Equity Incentive Plan. The 2004 Incentive Plan expired pursuant to its terms on April 7, 2014.

The following table summarizes stock option activity under the Company's 2004 Equity Incentive Plan:

Options	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2013	6,526,506	$ 3.66	—	—
Granted	175,000	$ 4.97	—	—
Exercised	(39,352)	$ 1.40	—	—
Forfeitures	(5,937)	$ 6.18	—	—
Outstanding at March 31, 2014	6,656,217	$ 3.71	7.43	$10,708,746
Vested and expected to vest March 31, 2014	6,617,299	$ 3.70	7.42	$10,701,253
Exercisable at March 31, 2014	4,077,685	$ 2.93	6.78	$ 9,204,627

The total intrinsic value of stock options exercised during the three months ended March 31, 2014 and 2013 were $0.1 million and $0.1 million, respectively, as determined at the date of the option exercise. Cash received from stock option exercises was $55,000 and $33,000 for each of the three months ended March 31, 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 the Company's current loss position.

2004 Employee Stock Purchase Plan On January 1, 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. For the three months ended March 31, 2014, plan participants had purchased 74,062 shares at an average purchase price of $3.91. At March 31, 2014, plan participants had $0.1 million withheld to purchase stock on August 14, 2014, which is included in accrued liabilities on the accompanying unaudited condensed consolidated balance sheet. At March 31, 2014, 261,834 shares were authorized and available for issuance under the ESPP.

NOTE 6— 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 marketable securities) at fair value on a recurring basis as of March 31, 2014 and December 31, 2013:

(in thousands)	Fair Value as of March 31, 2014	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
Money market funds	$ 5,001	$ 5,001	$ —	$ —
Certificates of deposit	1,464	—	1,464	—
Corporate debt securities	55,317	—	55,317	—
U.S. Government securities	18,990	—	18,990	—
Municipal securities	1,618	—	1,618	—
Commercial paper	3,996	—	3,996	—
Total cash equivalents and marketable securities	$ 86,386	$ 5,001	$ 81,385	$ —

(in thousands)	Fair Value as of December 31, 2013	Basis of Fair Value Measurements		
		Level 1	Level 2	Level 3
Money market funds	$ 4,285	$ 4,285	$ —	$ —
Certificates of deposit	1,584	—	1,584	—
Corporate debt securities	49,019	—	49,019	—
Government securities	21,731	—	21,731	—
Municipal securities	2,815	—	2,815	—
Commercial paper	2,599	—	2,599	—
Total cash equivalents and marketable securities	$ 82,033	$ 4,285	$ 77,748	$ —

The Company invests in highly-liquid, investment-grade securities. The following is a summary of the Company's available-for-sale securities at March 31, 2014 and December 31, 2013:

As of March 31, 2014 (in thousands):	Cost Basis	Unrealized Gain	Unrealized Loss	Fair Value
Money market funds	$ 5,001	$ —	$ —	$ 5,001
Certificates of deposit	1,464	—	—	1,464
Corporate debt securities	55,318	15	(16)	55,317
U.S. Government securities	18,977	15	(2)	18,990
Municipal securities	1,617	1	—	1,618
Commercial paper	3,996	—	—	3,996
	86,373	31	(18)	86,386
Less cash equivalents	6,743	—	—	6,743
Total marketable securities	$79,630	$ 31	$ (18)	$79,643

As of December 31, 2013 (in thousands):	Cost Basis	Unrealized Gain	Unrealized Loss	Fair Value
Money market funds	$ 4,285	$ —	$ —	$ 4,285
Certificates of deposit	1,584	—	—	1,584
Corporate debt securities	49,001	25	(7)	49,019
Government securities	21,722	12	(3)	21,731
Municipal securities	2,814	1	—	2,815
Commercial paper	2,599	—	—	2,599
	82,005	38	(10)	82,033
Less cash equivalents	7,279	—	—	7,279
Total marketable securities	$74,726	$ 38	$ (10)	$74,754

There were no realized gains or losses in the three months ended March 31, 2014 and 2013.

As of March 31, 2014, the weighted average maturity for the Company's available for sale securities was 6.8 months, with the longest maturity being August 2015.

The following table provides the breakdown of the marketable securities with unrealized losses at March 31, 2014 (in thousands):

	In loss position for less than twelve months	
As of March 31, 2014 (in thousands):	Fair Value	Unrealized Loss
Government securities	$ 6,653	$ (1)
Corporate debt securities	20,116	(12)
Total marketable securities	$ 26,769	$ (13)

The Company determined the fair value of the liability associated with its warrants to purchase 8.3 million shares of outstanding common stock using a Black-Scholes Model. See detailed discussion in Note 4 — Stockholders' Equity.

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 unaudited condensed consolidated balance sheets. The future rental payments required by the Company for all of its facilities under noncancelable operating leases are as follows (in thousands):

Years Ending December 31,	
2014	$ 667
2015	918
2016	953
2017	238
Thereafter	—
Total	$2,776

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 March 31, 2014.

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.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the "Risk Factors" section of this Quarterly Report on Form 10-Q. Other than statements of historical fact, statements made in this Quarterly Report on Form 10-Q are forward-looking statements within the meaning of Section 21E of the Exchange Act, and Section 27A of the Act . When used in this report or elsewhere by management from time to time, the words "believe," "will," "may," "anticipate," "intend," "plan," "estimate," "expect," and similar expressions are forward-looking statements. Such forward-looking statements are based on current expectations. Forward-looking statements made in this report include, for example, statements about:

- the clinical development of TH-302 and its expected uses and benefits;
- anticipated clinical developmental events for TH-302, including the timing of the commencement, conduct and completion of clinical trials for TH-302 and the timing of any efficacy and/or safety analyses from ongoing trials;
- anticipated milestone payments from Merck KGaA;
- the success of any clinical trials that we and/or Merck KGaA commence;
- our and Merck KGaA's potential receipt of regulatory approvals, and our and Merck KGaA's satisfaction of ongoing regulatory review;
- our and Merck KGaA's ability to timely develop a viable commercial formulation of TH-302;
- whether any product candidates that we and/or Merck KGaA are able to commercialize are safer or more effective than other marketed products, treatments or therapies;
- uncertainties associated with obtaining and enforcing patents and other intellectual property rights;
- the costs and timing of obtaining drug supply for our pre-clinical and clinical activities;
- anticipated expenses, including clinical trial, research and development and personnel costs;
- the anticipated sufficiency of our cash resources and our need for additional capital;
- our projected financial performance; and
- the clinical development of [18-F]-HX4 and its expected uses and benefits.

Forward-looking statements are not guarantees of future performance and involve risks and uncertainties. Actual events or results may differ materially from those discussed in the forward-looking statements as a result of various factors. For a more detailed discussion of the potential risks and uncertainties that may impact their accuracy, see the "Risk Factors" section in Part II, Item 1A of this quarterly report on Form 10-Q. Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements reflect our view only as of the date of this report. You should read this report completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify our forward-looking statements by our cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons that actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

Overview

We are a biotechnology company using our expertise in the tumor microenvironment to discover and develop therapeutic agents that selectively target tumor cells for the treatment of patients living with cancer. Our lead investigational small molecule, TH-302, is being evaluated in two pivotal Phase 3 clinical trials and multiple earlier-stage clinical trials. We have a global license and co-development agreement for TH-302 with Merck KGaA, with an option to co-commercialize in the United States.

TH-302 was discovered by our scientists based on our hypoxia-targeted therapeutics technology. Hypoxia, or abnormally low oxygen concentration, is a common feature of the tumor microenvironment in most solid tumors and in the bone marrow of patients with some hematological malignancies (also known as cancers of the bone marrow, for example, leukemias and multiple myeloma). We believe that by virtue of targeting tumor hypoxia, TH-302 may have broad clinical applicability across many types of solid tumors and some hematological malignancies. To explore this broad therapeutic potential of TH-302, we are conducting multiple clinical trials to evaluate its safety and efficacy as monotherapy and in combination with currently marketed anticancer drugs, including traditional chemotherapeutic agents and antiangiogenic agents.

The most advanced clinical study of TH-302 is a pivotal Phase 3 clinical trial of TH-302 plus doxorubicin versus doxorubicin alone in patients with soft tissue sarcoma, which we refer to as the 406 trial. Enrollment of 620 patients was completed in December 2013. Interim efficacy and safety analyses are expected to be conducted by an Independent Data Monitoring Committee after 235 deaths are reported. The timing of reaching the number of events, which is dependent on the length of survival of patients, is currently projected to be in mid-2014, with the analyses to be conducted thereafter. However, because the interim analyses are event driven, which we do not control, we cannot predict with certainty when the interim analyses will commence.

In January 2013, we announced that our partner Merck KGaA initiated the global pivotal Phase 3 MAESTRO (**M**etast**A**tic or unr**ES**ectable pancrea**T**ic adenoca**R**cin**O**ma) study assessing the efficacy and safety of TH-302 in combination with gemcitabine in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma. Initiation of the pivotal Phase 3 MAESTRO clinical trial followed completion of our randomized and controlled Phase 2 clinical trial of TH-302 plus gemcitabine in patients with pancreatic cancer (which we refer to as the 404 trial) in which the primary endpoint of progression-free survival was met. Enrollment in the Phase 3 MAESTRO trial remains on track. In March 2014, we announced that Merck KGaA initiated a Phase 1 dose escalation study assessing the safety, tolerability and anti-tumor activity of TH-302 in combination with gemcitabine and nab-paclitaxel (Abraxane®) in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma.

Also in March 2014, we opened a 440-patient, randomized, double-blind, placebo-controlled trial of TH-302 in combination with pemetrexed in advanced non-squamous non-small cell lung cancer (which we refer to as the 415 trial). The international Phase 2 trial is designed to compare the combination of TH-302 and pemetrexed versus the combination of pemetrexed and placebo as second-line therapy in this patient population. A TH-302 dose of 400 mg/m^2 will be utilized in combination with full-dose pemetrexed. Overall survival is the primary endpoint; secondary endpoints include safety and assessment of anti-tumor activity as determined by progression-free survival and objective response rate.

In August 2013, we announced the initiation of a Phase 2 clinical trial of TH-302 as single-agent monotherapy in patients with advanced melanoma (which we refer to as the 413 trial). In March 2012, we initiated a Phase 1/2 open label clinical trial of TH-302 to determine the maximum tolerated dose, dose limiting toxicity, safety, tolerability, clinical activity, and pharmacokinetics of TH-302 in patients with relapsed/refractory multiple myeloma (which we refer to as the 408 trial). Updated results were reported at the December 2013 ASH annual meeting showing initial signs of clinical activity of the combination of TH-302 and dexamethasone in heavily pretreated relapsed/refractory multiple myeloma patients. The maximum tolerated dose was established at 340 mg/m^2 TH-302 and enrollment of additional patients at the maximum tolerated dose is ongoing.

TH-302 is also the subject of clinical trials investigating the combination of TH-302 with antiangiogenic therapies in a variety of tumor types. Threshold is the sponsor of a Phase 1 dose-escalation study of TH-302 in combination with sunitinib in patients with advanced renal cell carcinoma or RCC, gastrointestinal stroma tumors, and pancreatic neuroendocrine tumors (which we refer to as the 410 trial). Two investigator-sponsored trials of TH-302 are currently enrolling patients: a Phase 1/2 randomized study of TH-302 in combination with bevacizumab in recurrent glioblastoma following bevacizumab failure and a Phase 1/2 study of TH-302 in combination with sorafenib in advanced RCC and advanced hepatocellular carcinoma.

We are working to broaden the potential applicability of TH-302 to other cancers and in combination with other approved anti-cancer drugs as well as to discover additional hypoxia-targeted therapeutics that will selectively target cancer cells. We also seek to improve our capability of identifying patients who may be most likely to respond to our hypoxia-targeted therapeutics. [18F]-HX4 is an investigational radiolabeled hypoxia Positron Emission Tomography (PET) tracer that we acquired from Siemens Healthcare Molecular Imaging to potentially identify and quantify the degree of hypoxia in tumors *in vivo*. 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.

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 license and co-development agreement with Merck KGaA. As of March 31, 2014 and December 31, 2013, we had cash, cash equivalents and marketable securities of $86.4 million and $82.0 million, respectively. We expect to continue to devote substantial resources to research and development in future periods as we complete our current clinical trials, start additional clinical trials under our collaboration with Merck KGaA or on our own and continue our discovery efforts. Research and development expenses net of reimbursements of Merck KGaA's 70% share of total TH-302 development expenses are expected to increase in 2014 compared to 2013 due primarily to the continued execution of existing clinical trials and anticipated commencement of new clinical trials for TH-302. 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, milestone payment forecasts and spending assumptions. Although 70% of the collaboration expenditures related to the development of TH-302 are expected to be funded by Merck KGaA, we expect that we will need to raise additional capital to complete the clinical development of TH-302 and to support new in-house development programs or to in-license or otherwise acquire and develop additional products or programs. Research and development expenses may fluctuate significantly from period to period as a result of the progress and results of our clinical trials.

Results of Operations

Revenue. For the three months ended March 31, 2014, we recognized $3.7 million in revenue from the amortization of the aggregate of $110 million in upfront and milestone payments earned in 2013 and 2012 from our collaboration with Merck KGaA. For the three months ended March 31, 2013, we recognized $2.9 million in revenue, from the amortization of the $97.5 million in upfront and milestone payments earned in the first quarter of 2013 and in 2012 from our collaboration with Merck KGaA. We are amortizing the upfront payment and milestones earned over the period of performance (product development period). We will periodically review and, if necessary, revise the estimated periods of performance of our collaboration. We expect revenue to increase in 2014 compared to 2013 due to the full year amortization of milestone payments earned in 2013.

Research and Development. Research and development expenses were $9.7 million for the three months ended March 31, 2014 compared to $6.5 million for the three months ended March 31, 2013, in each case net of the reimbursement for Merck KGaA's 70% share of total development expenses for TH-302. The $3.2 million increase in expenses is due primarily to a $4.8 million increase in clinical development expenses and an increase of $0.8 million in consulting and employee related expenses, partially offset by a $2.4 million increase in reimbursement for Merck KGaA's 70% share of total development expenses for TH-302.

During the three months ended March 31, 2014 and 2013, we were engaged in two primary research and development programs: the development of TH-302, which is the subject of two ongoing 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. 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 TH-302) attributable to both programs for each period presented:

Research and development expenses by project (in thousands)	Three months ended March 31,	
	2013	2013
TH-302	$8,232	$ 5,446
Discovery research	1,421	1,022
Total research and development expenses	$9,653	$ 6,468

Research and development expenses associated with our internally discovered compound TH-302 were $8.2 million for the three months ended March 31, 2014 and $5.4 million for the three months ended March 31, 2013, in each case net of the reimbursement for Merck KGaA's 70% share of total development expenses for TH-302. The increase of $2.8 million during the three months ended March 31, 2014 compared to same period in 2013, net of reimbursement for Merck KGaA's 70% share of total development expenses for TH-302, was due primarily to an increase in development costs for the 406 trial, the MAESTRO trial and the 415 trial. TH-302 continues to progress through the 406 trial, the MAESTRO trial, the recently commenced 415 trial, the 413 trial and the 408 trial.

Discovery research and development expenses were $1.4 million for the three months ended March 31, 2014 compared to $1.0 million for the three months ended March 31, 2013. We continue to focus our efforts towards discovering and developing new drug candidates from our hypoxia targeted therapeutic technology.

The largest component of our total operating expenses is our ongoing investment in our research and development activities, including the clinical development of TH-302, and we expect to continue to devote substantial resources to research and development in future periods as we complete our current clinical trials, start additional clinical trials and continue our discovery efforts under our collaboration with Merck as well as on our own. Research and development expenses, including reimbursements of Merck KGaA's 70% share of development expenses, are expected to increase in 2014 compared to 2013 due to the continued execution of existing clinical trials and the anticipated start of new clinical trials. Expenses will fluctuate based upon many factors including the degree of collaborative activities, timing of manufacturing batches of TH-302 active pharmaceutical ingredient, or API, and drug product, numbers of patients enrolled in our clinical trials and the outcome of each clinical trial event.

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 and development of our TH-302 and discovery research programs to be critical to our long-term success. The actual probability of success for TH-302 and 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 strategy may include entering into collaborations with third parties, such as our TH-302 collaboration with Merck KGaA, to participate in the development and commercialization of our product candidates. In these situations, 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 future clinical 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, TH-302 may have the potential to be approved for multiple indications, and we do not yet know how many of those indications we and Merck KGaA 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 and Merck KGaA's prior and ongoing clinical studies and the willingness of Merck KGaA 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 and Merck KGaA 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.

We did not track research and development expenses by project prior to 2003, and therefore we cannot provide cumulative project expenses to date. The risks and uncertainties associated with our research and development projects are discussed more fully in the "Risk Factors" section in Part II, Item 1A of this quarterly report on Form 10-Q. As a result of the risks and uncertainties discussed in the "Risk Factors" section 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 TH-302. 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 $2.6 million for the three months ended March 31, 2014, compared to $2.5 million for the three months ended March 31, 2013. The $0.1 million increase in expenses is due primarily to an increase in employee related expenses to support our ongoing collaboration with Merck KGaA. We currently expect our general and administrative expenses to increase in 2014 compared to 2013 due to increased staffing and consulting expenses to support activities related to our collaboration with Merck KGaA and the ongoing development of TH-302.

Interest Income (Expense), Net. Interest income (expense), net for the three months ended March 31, 2014 was $40,000 of interest income compared to $36,000 of interest income for the same period in 2013.

Other Income (Expense). Other income (expense) for the three months ended March 31, 2014 was non-cash income of $1.5 million compared to non-cash expense of $3.1 million, for the three months ended March 31, 2013. The non-cash income for 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 as result of a change in the underlying stock price, and to a lesser extent, a decrease in the number of warrants outstanding. 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.

Liquidity and Capital Resources

We have not generated and do not expect to generate revenue from sales of product candidates in the near term. Since our inception we funded our operations primarily through private placements and public offerings of equity securities and through payments received under our license and co-development agreement with Merck KGaA. To date we have received $110 million in upfront and milestone payments from our collaboration with Merck KGaA, including a $12.5 million milestone payment received during the three months ended March 31, 2014. We had cash, cash equivalents and marketable securities of $86.4 million and $82.0 million at March 31, 2014 and December 31, 2013, respectively, available to fund operations.

Net cash provided by operating activities for the three months ended March 31, 2014, was $4.4 million compared to net cash provided by operating activities of $33.5 million for the three months ended March 31, 2013. The decrease of $29.1 million in cash provided by operations was primarily attributable to $12.5 million of cash received related to a milestone payment from the Merck KGaA collaboration during the three months ended March 31, 2014 compared to $42.5 million of cash received related to milestone payments from the Merck KGaA collaboration during the three months ended March 31, 2013.

Net cash used in investing activities for the three months ended March 31, 2014 was $5.2 million compared with net cash used in investing activities of $24.3 million for the three months ended March 31, 2013. The $19.1 million decrease in cash used by investing activities was due primarily to a decrease in proceeds used in the purchase of marketable securities net of proceeds from the sales and maturities of marketable securities.

Net cash provided by financing activities for the three months ended March 31, 2014 and 2013 was $0.3 million and $0.2 million, respectively. Net cash received during both periods was related to the exercise of stock options and purchase rights under our employee equity incentive plans.

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, milestone payment forecasts and spending assumptions. Although some of the expenditures related to TH-302 are expected to be funded by Merck KGaA, we expect that we will need to raise additional capital to complete the clinical development of TH-302 and to support new in-house development programs or to in-license or otherwise acquire and develop additional products or programs.

We may seek to raise capital 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 will depend, in part on the outcome of our clinical trials and other clinical and regulatory events, as well as factors related to financial, economic, and market conditions, collaboration or license agreement with others and factors related to financial, economic and market conditions, many of which are beyond our control. In addition, our ability to raise additional capital may be dependent upon our common stock remaining listed on the NASDAQ Capital Market. We cannot be certain that sufficient funds will be available to us when required or on satisfactory terms, if at all. If adequate funds are not available, we may be required to significantly reduce or refocus our operations

or to obtain funds through additional arrangements that may require us to relinquish rights to certain of our products, technologies or potential markets, any of 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 research and 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 financing on a timely basis or on terms favorable to us, we may be required to cease or reduce certain research and development projects, 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 unaudited condensed consolidated balance sheets.

During the three months ended March 31, 2014, there have been no significant changes in our payments due under contractual obligations and commitments, as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2013, which we filed with Securities and Exchange Commission on March 6, 2014.

Critical Accounting Policies and Use of Estimates

Our discussion and analysis of our financial condition and results of operations are based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information. The preparation of these unaudited condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses based on historical experience and on various assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. For further information on our critical accounting policies, see the discussion of critical accounting policies in our Annual Report on Form 10-K for the year ended December 31, 2013, which we filed with the SEC on March 6, 2014.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

During the three months ended March 31, 2014, there were no material changes to our market risk disclosures as set forth in Part II, Item 7A "Quantitative and Qualitative Disclosures About Market Risk" in our annual report on Form 10-K for the year ended December 31, 2013.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures.

We have carried out an evaluation under the supervision and with the participation of management, including our principal executive officer and principal financial officer, of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on their evaluation as of March 31, 2014, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in internal controls over financial reporting.

There were no changes in our internal control over financial reporting during the three months ended March 31, 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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 benefits 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 Threshold Pharmaceuticals, Inc. have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the control.

The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and we cannot be certain that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met and, as set forth above, our principal executive officer and principal financial officer have concluded, based on their evaluation, that our disclosure controls and procedures were effective as of March 31, 2014 to provide reasonable assurance that the objectives of our disclosure control system were met.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are not a party to any material legal proceedings.

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 quarterly report on Form 10-Q, including our condensed consolidated financial statements and related notes.

Risks Related to Drug Discovery, Development and Commercialization

We are substantially dependent upon the success of TH-302, which is our only product candidate in clinical development. If we and Merck KGaA are unable to successfully develop and obtain regulatory approval for TH-302, our ability to generate revenue from product sales will be significantly delayed.

We have focused our development activities on TH-302, and we do not presently have any other compounds in clinical development. Substantially all of our efforts and expenditures over the next few years are expected to be devoted to TH-302. Accordingly, our future prospects are substantially dependent on the successful development, regulatory approval and commercialization of TH-302. In addition, in February 2012, we entered into a global license and co-development agreement for TH-302 with Merck KGaA, with an option to co-commercialize in the United States. The success of this collaboration and the activities of Merck KGaA will significantly impact the development and potential commercialization of TH-302. In addition, TH-302 is not expected to be commercially available in the near term, if at all. Further, the commercial success of TH-302 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. If we and Merck KGaA are unable to successfully develop, obtain regulatory approval for and commercialize TH-302, our ability to generate revenue from product sales will be significantly delayed and our business would be materially and adversely affected, and we may not be able to earn sufficient revenues to continue as a going concern.

In addition, the failure of TH-302 to achieve successful clinical trial endpoints, delays in clinical trial enrollment or events or in the clinical development of TH-302 generally, unanticipated adverse side effects related to TH-302 or any other adverse developments or information related to TH-302 would significantly harm our business, our prospects and the value of our common stock. TH-302 is currently the subject of two ongoing pivotal Phase 3 clinical trials being conducted under special protocol assessments, or SPAs, with the U.S. Food and Drug Administration, or FDA: the "406 trial" evaluating TH-302 in combination with doxorubicin versus doxorubicin alone in patients with soft tissue sarcoma, and the MAESTRO trial of TH-302 in combination with gemcitabine in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma. There is no guarantee that the results of either of the ongoing Phase 3 clinical trials will be positive. Negative or inconclusive results in either of the Phase 3 clinical trials could cause the FDA to require that we repeat it or conduct additional clinical trials. Even if we believe that the data from required Phase 3 clinical trials is positive, the FDA could require additional trials or other testing before approving TH-302 for marketing. In this regard, the FDA has substantial discretion in the approval process and may refuse to approve any application or decide that our or Merck KGaA's data is insufficient for approval and require additional preclinical, clinical or other studies. Varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of TH-302. The FDA could also require additional studies or trials to satisfy particular safety concerns noted in our or Merck KGaA's preclinical or clinical testing. Even if the FDA or other regulatory agency approves TH-302, the approval may impose significant restrictions on the indicated uses, conditions for use, labeling, advertising, promotion, marketing and/or production of such product and may impose ongoing commitments or requirements for post-approval studies, including additional research and development and clinical trials. The FDA and other agencies also may impose various civil or criminal sanctions for failure to comply with regulatory requirements, including withdrawal of product approval. We and Merck KGaA will need to obtain regulatory approval from authorities in foreign countries to market TH-302 in those countries. Approval by one regulatory authority does not ensure approval by regulatory authorities in other jurisdictions. If we or Merck KGaA fail to obtain approvals from foreign jurisdictions, the geographic market for TH-302 would be limited.

Although we obtained agreement with the FDA on an SPA for our pivotal Phase 3 clinical trial of TH-302 in combination with doxorubicin versus doxorubicin alone in patients with for soft tissue sarcoma and Merck KGaA has obtained agreement with the FDA on an SPA for the pivotal Phase 3 clinical trial of TH-302 in combination with gemcitabine for the treatment of previously untreated locally advanced unresectable or metastatic pancreatic cancer, an agreement on an SPA does not guarantee any particular outcome from regulatory review, including any regulatory approval.

We have obtained an agreement with the FDA on an SPA for the 406 trial of TH-302. Merck KGaA has also obtained an agreement with the FDA on an SPA for the MAESTRO trial of TH-302. 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 data from a 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 clinical outcome is 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 clinical trials proceed or as part of an NDA 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 parties' respective commitments under the SPA agreements, how it will interpret the data and results from the 406 trial and the MAESTRO trial, or whether TH-302 will receive any regulatory approvals.

Additionally, an SPA may be changed only with written agreement of the FDA and sponsor, and any further changes we or Merck KGaA 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 clinical endpoints. As a result, even with an SPA, we cannot be certain that the trial results from the 406 trial or 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 TH-302 and it is possible that we and Merck KGaA might never receive any regulatory approvals for TH-302.

Pre-clinical studies and Phase 1 or 2 clinical trials of TH-302 may not predict the results of subsequent human clinical trials.

Pre-clinical studies, including studies of our product candidates in animal models of disease, may not accurately predict the result of human clinical trials of those product candidates. In particular, promising animal studies suggesting the efficacy of TH-302 for the treatment of different types of cancer may not accurately predict the ability of TH-302 to treat cancer effectively in humans. TH-302 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 drug 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 TH-302also may not be confirmed by later analysis or in subsequent larger clinical trials, including in the 406 trial and the MAESTRO trial. In particular, the results that achieved the primary endpoint for progression-free survival in the Phase 2b trial of TH-302 in pancreatic cancer may not predict the results of overall survival for patients in the same study or subsequent studies, including in the MAESTRO trial. As a result, despite the results reported in earlier clinical trials for TH-302, we do not know whether the ongoing Phase 3 clinical trials or other clinical trials that we or Merck KGaA may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market TH-302. Our and Merck KGaA's failure to successfully complete clinical trials and obtain regulatory approval for TH-302 would materially and adversely affect our business and our stock price.

We are dependent upon our collaborative relationship with Merck KGaA to further develop, manufacture and commercialize TH-302.

Our success in developing, manufacturing and commercializing TH-302 depends on our relationship with Merck KGaA. On February 3, 2012, we entered into a global license and co-development agreement for TH-302 with Merck KGaA, Darmstadt, Germany, with an option to co-commercialize in the United States. In the United States, we have primary responsibility for development of TH-302 in the soft tissue sarcoma indication. We and Merck KGaA will jointly develop TH-302 in all other cancer indications being pursued. We have rights to co-promote TH-302 in the United States, which we can exercise by giving notice during specified periods, and have the right to co-commercialize TH-302 if certain development or sales milestones are achieved.

We are subject to a number of risks associated with our dependence on our collaborative relationship with Merck KGaA, including:

- our ability, together with Merck KGaA, to achieve developmental and commercial milestones that will trigger payments to us under the agreement;
- our ability to fund 30% of the global development expenses of TH-302;
- we are not able to control any decisions by Merck KGaA regarding the amount and timing of resource expenditures for the development and commercialization of TH-302;
- Merck KGaA may delay clinical trials, provide insufficient funding for a clinical trial, stop a clinical trial or abandon TH-302, repeat or conduct new clinical trials or require a new formulation of TH-302 for clinical testing;
- possible disagreements with Merck KGaA as to development plans, clinical trials, regulatory marketing or sales;
- our need to develop a sales force to co-promote or co-commercialize TH-302 in the United States if we chose to do so, or our reliance on Merck KGaA to promote TH-302 in the United States;

- our inability to co-promote or co-commercialize TH-302 in any country outside the United States, which makes us solely dependent on Merck KGaA to promote and commercialize TH-302 in foreign countries;
- if TH-302 is approved for commercial sale and we exercise our co-promotion or co-commercialization rights for TH-302 in the United States, if we do not receive timely and accurate information from Merck KGaA regarding sales activities, expenses and resulting operating profits and losses, our estimates at a given point of time could be incorrect and we could be required to record adjustments in future periods or restate our financial results for prior periods;
- loss of significant rights if we fail to meet our obligations under the collaboration agreement;
- Merck KGaA may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- adverse regulatory or legal action against Merck KGaA resulting from failure to meet healthcare industry compliance requirements in the promotion and sale of TH-302, including federal and state reporting requirements;
- changes in key management personnel at Merck KGaA, including Merck KGaA's representatives on the joint steering committee or other committees that are administering the agreement;
- Merck KGaA could independently move forward with a competing product candidate developed either independently or in collaboration with others, including our competitors;
- changes in key management personnel at Merck KGaA, including Merck KGaA's representatives on the joint steering committee or other committees that are administering the agreement; and
- possible disagreements with Merck KGaA regarding interpretation or enforcement of the agreement that could result in the delay or termination of the research, development or commercialization of TH-302 or that could result in costly litigation or arbitration that diverts management's attention and resources.

We have limited ability to direct Merck KGaA in its development of TH-302 and we may be unable to obtain any remedy against Merck KGaA if they fail to do so, or to do so in a manner that we think is inadequate. Merck KGaA may not have sufficient expertise to develop, promote or obtain reimbursement for oncology products in the United States and may fail to devote appropriate resources to this task. Merck KGaA's development plans may be slower than or different from our plans were, when we were developing TH-302 on our own, leading to changes and delays in development and in the achievement of milestones that would impact payments to us under our agreement with Merck KGaA. In addition, Merck KGaA may establish a sales and marketing infrastructure for TH-302 that is not appropriate for the sales opportunity or establish this infrastructure too early or late in view of the ultimate timing of potential regulatory approvals. We are at risk with respect to the success or failure of Merck KGaA's development and commercial decisions related to TH-302 as well as the extent to which Merck KGaA succeeds in the execution of its strategy. Merck KGaA's development of other products may affect its incentives to develop and commercialize TH-302 and cause it to take actions that may be different from those we would take.

Under the terms of the agreement, we and Merck KGaA must agree on the development plan for TH-302. If we and Merck KGaA cannot agree, clinical trial progress could be significantly delayed. Further, we are required to fund 30% of the global development expenses of TH-302; if we cease funding development of TH-302 under the collaboration agreement, then we will be entitled to receive a royalty, but will lose our right to co-commercialize TH-302 and share in profits, which could substantially harm our business, financial condition and prospects.

Merck KGaA has the right to terminate the agreement on 90 days' prior written notice, or following our uncured material breach. If Merck KGaA terminates the agreement at its election, then we would become responsible for the costs of development and commercialization of TH-302, and there can be no assurance we would be able to do so, or to find another collaborator for the continued development and commercialization of TH-302. If we are unable to maintain our collaborative relationship with Merck KGaA, we may be unable to continue development, manufacturing and any marketing activities at our own expense.

If we were able to do so on our own, this would significantly increase our capital and infrastructure requirements, would necessarily impose delays on our TH-302 development program, may limit the indications we are able to pursue and could prevent us from effectively developing and commercializing TH-302. In turn, this could significantly harm our financial position, adversely affect our stock price and require us to incur all the costs of developing and commercializing TH-302, which are now being largely funded by Merck KGaA. In the future, we may not be able to locate third-party collaborators to develop and market TH-302 and we may lack the capital and resources necessary to develop TH-302 alone. Disputes with Merck KGaA may delay or prevent us from further developing, manufacturing or commercializing TH-302, and could lead to litigation against Merck KGaA, which could be time consuming and expensive.

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

Delays the progression of our or Merck KGaA's 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 planned clinical trials 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; and
- disagreements with Merck KGaA on development plans.

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 and/or Merck KGaA do not successfully complete our clinical trials on schedule, the price of our common stock may 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 and/or Merck KGaA can obtain regulatory approval for a product candidate, we and/or Merck KGaA 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 us or Merck KGaA successfully completing clinical testing within the time frames we have planned or anticipated, or at all. We or Merck KGaA may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent us or Merck KGaA from receiving regulatory approval or commercializing our product candidates, including the following:

- our or Merck KGaA's clinical trials may produce negative or inconclusive results, and we or Merck KGaA may decide, or regulators may require us and Merck KGaA, 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 Merck KGaA 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 TH-302, during a clinical trial could cause the trial to be terminated or require additional studies. Furthermore, some of our clinical trials are overseen by Independent Data Monitoring Committees, or IDMCs. 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 interim, unblinded data. Any of our ongoing clinical trials overseen by an IDMC may be discontinued or amended in response to recommendations made by responsible IDMCs based on their review of such interim trial results and an IDMC may determine to delay or suspend the trial due to safety or futility findings based on events occurring during a clinical trial. For example, as part of our study protocol for the 406 trial, an IDMC monitors patient safety on an ongoing basis and will conduct interim efficacy and safety analyses after 235 deaths are reported in the trial. If the IDMC at any time determines that data from the 406 trial give rise to safety concerns, the IDMC could recommend that the 406 trial be halted or substantially modified. Moreover, if as a result of the planned interim efficacy analysis for the 406 trial the IDMC determines that the 406 trial would be unlikely to meet its primary endpoint of overall survival, the IDMC could recommend early termination of the 406 trial. The recommended termination of any of our or Merck KGaA's ongoing late-stage clinical trials by an IDMC, including the 406 trial, could materially and adversely impact the future development of TH-302, 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 our product 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 Europe and elsewhere. We and Merck KGaA 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 or Merck KGaA 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 TH-302, 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, including TH-302, are expected to have undesirable side effects. For example, in clinical trials of TH-302, some patients have exhibited skin and/or mucosal toxicities that have 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 our or Merck KGaA's 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, TH-302 may prove to have undesirable or unintended side effects or other characteristics adversely affecting its safety, efficacy or cost effectiveness that could prevent or limit its approval for marketing and successful commercial use, or that could delay or prevent the commencement and/or completion of clinical trials for TH-302.

We have not yet gained sufficient experience with a commercial formulation of TH-302.

The formulation of TH-302 that we and Merck KGaA are using in our clinical trials was recently changed to address issues with a prior formulation that was subject to storage and handling requirements that were not suitable for a commercial product. We developed a new formulation of TH-302 that 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 TH-302, then we and/or Merck KGaA may be required to repeat some or all of our respective Phase 3 clinical trials of TH-302, or we and Merck KGaA may need to develop an alternative commercial formulation, either of which could delay, perhaps substantially, our ability to obtain any regulatory approvals of TH-302.

Even though we and Merck KGaA have received orphan drug designation for TH-302, we may not receive orphan drug marketing exclusivity for TH-302. Even if we and/or Merck KGaA obtain orphan drug exclusivity, orphan drug exclusivity would afford us and Merck KGaA 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 and Merck KGaA have received orphan drug designation for TH-302 for the treatment of soft tissue sarcoma and pancreatic cancer in the United States and the European Union. 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 and Merck KGaA obtain orphan drug exclusivity for TH-302, 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 TH-302 were approved for soft tissue sarcoma and/or pancreatic cancer, other drugs could still be approved for use in treating the same indications covered by TH-302, 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 and Merck KGaA have obtained orphan drug designation, if a competitor obtains regulatory approval for TH-302 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.

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 may not develop additional prodrug product candidates suitable for clinical testing, which could limit our growth and revenue potential.

We are focused on the design and development of novel cyotoxic prodrug compounds for the treatment of cancer. However, TH-302 is our only product candidate in clinical development and we may be unable to discover and develop additional product candidates suitable for clinical testing. If we are unable to develop suitable product candidates for clinical testing from our internal efforts, we may pursue additional product candidates through in-licensing. Any growth through in-licensing would depend upon the availability of suitable product candidates at favorable prices and upon advantageous terms and conditions. If we are unable to develop or obtain suitable product candidates, 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 or Merck KGaA 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 and Merck KGaA 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. 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 approval before the product, as modified, can be marketed. Manufacturers of our products, if approved, will be subject to ongoing FDA 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 and/or Merck KGaA obtain regulatory approval for TH-302, it 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 TH-302, 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 our products for off-label uses can also subject us to false claims litigation under federal and state statutes, which can lead to civil and criminal penalties and fines and agreements that materially restrict the manner in which we promote or distribute our drug 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.

Our license and co-development agreement with Merck KGaA gives us the right, under certain circumstances, to co-promote or co-commercialize TH-302. 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 TH-302, 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.

We have incurred losses in each year 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 research and development of our product candidates. For the three months ended March 31, 2014, we had an operating loss of $8.6 million and a net loss of $7.1 million, including $1.5 million in non-cash income related to the change in the fair value of outstanding warrants. Clinical trials and activities associated with discovery research are costly. 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, such as Merck KGaA, 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.

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

Our quarterly and annual results of operations are likely to fluctuate based on the timing of milestones and payments under our license and co-development agreement with Merck KGaA. 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 products that are undergoing clinical development.

We are likely to 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 achievement of certain milestone events under, and the continued effectiveness of, our collaborative arrangement with Merck KGaA;
- the extent of product development funding under our collaborative arrangement with Merck KGaA;
- the terms and timing of any future collaborative, licensing, acquisition or other arrangements that we may establish;
- the scope, rate of progress and cost of our clinical trials and other research and 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.

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, milestone payment forecasts and spending assumptions. Although 70% of the collaboration expenditures related to development of TH-302 are expected to be funded by Merck KGaA, we expect that we will need to raise additional capital to complete the clinical development of TH-302 and to support new in-house development programs or to in-license or otherwise acquire and develop additional products or programs.

We may seek to raise capital 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 will depend, in part on the outcome of our clinical trials and other clinical and regulatory events, as well as factors related to financial, economic, and market conditions, collaboration or license agreement with others and factors related to financial, economic and market conditions, many of which are beyond our control. In addition, our ability to raise additional capital may be dependent upon our common stock remaining listed on the NASDAQ Capital Market. We cannot be certain that sufficient funds will be available to us when required or on satisfactory terms, if at all. If adequate funds are not available, we may be required to significantly reduce or refocus our operations or to obtain funds through additional arrangements that may require us to relinquish rights to certain of our products, technologies or potential markets, any of 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 research and 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 financing on a timely basis or on terms favorable to us, we may be required to cease or reduce certain research and development projects, 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 success depends in part on 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 may need 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, and Senior Vice President of Discovery Research, Dr. Mark G. Matteucci. We do not have an employment agreement with Drs. Selick or Matteucci. The loss of the services of Drs. Selick or Matteucci or one or more of our other key employees could delay or have an impact on the successful completion of our clinical trials or the development of additional product candidates.

As of March 31, 2014, we had 57 employees. Our success will depend on our ability to retain and motivate remaining personnel and hire additional qualified personnel when required. 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.

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 TH-302. 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 TH-302 could be delayed.

We do not have our own manufacturing capability for TH-302 API or TH-302 drug product. Under our license and co-development agreement with Merck KGaA, Merck KGaA has exclusive rights to manufacture TH-302 for clinical and commercial use, except that we have the right to obtain clinical supply of TH-302 for clinical trials for United States approval of TH-302 for soft tissue sarcoma and for any other clinical trials for which we are responsible. For these latter cases, we can obtain clinical supply 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 single source contract manufacturers and excipient suppliers for the TH-302 API and TH-302 drug product to meet our and Merck KGaA's clinical supply needs of TH-302. We have no long-term commitments or commercial supply agreements with any of our TH-302 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 TH-302 API and drug product manufactured to meet the clinical supply demands for our and Merck KGaA's clinical trials. While we have developed plans to meet our and Merck KGaA's clinical supply needs for our ongoing clinical trials of TH-302, 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 TH-302 API and drug product manufactured, or if manufacturing is interrupted at our single source contract manufacturers and excipient suppliers for TH-302 API and TH-302 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 TH-302 clinical program. In any event, we will need to order additional TH-302 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 TH-302 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 TH-302 API and drug product. The manufacturing processes improvements for the TH-302 API may require facilities upgrades at our suppliers, which may lead to delays or

disruption in supply, or delays in regulatory approval of TH-302. Changes to the formulation of TH-302 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 TH-302 clinical trial material, we may experience a significant delay in our TH-302 clinical program. Finally, we have not engaged any backup or alternative suppliers for parts of our TH-302 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 TH-302.

In any event, additional agreements for more supplies of each of our product candidates, including TH-302, will be needed to complete clinical development and/or commercialize them. In this regard, Merck KGaA may need to enter into agreements for additional supplies of TH-302 to commercialize it or develop such capability itself. We cannot be certain that Merck KGaA can do so on favorable terms, if at all. Merck KGaA will need to satisfy all current good manufacturing practice, or cGMP, regulations, including passing specifications. Merck KGaA's inability to satisfy these requirements could delay our clinical programs and the potential commercialization of TH-302 if approved for commercial sale.

If TH-302 or any of our other product candidates is approved by the FDA or other regulatory agencies for commercial sale, we or Merck KGaA as applicable, will need to have it manufactured in commercial quantities. It may not be possible to successfully manufacture commercial quantities of TH-302 or increase the manufacturing capacity for TH-302 or any of our other product candidates in a timely or economically feasible manner. Prior to commercial launch of TH-302, we may be required to manufacture additional validation batches, which the FDA and other regulatory agencies must review and approve. If we and/or Merck KGaA are unable to successfully manufacture the additional validation batches or increase the manufacturing capacity for TH-302 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, 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 TH-302 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 or Merck KGaA 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 and/or Merck KGaA may be unable to do in a timely or economically feasible manner or at all.

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 for compliance with cGMP regulations, before the respective product candidates can be approved. 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, 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 to develop and commercialize glufosfamide

We are dependent upon Eleison Pharmaceuticals, Inc., 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 TH-302, 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 commercialize the 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 TH-302 or any other potential future product candidates, then we

may not be able to retain or attract collaborators to partner our development programs, including TH-302. Further, even if we can obtain protection for and defend the intellectual property position of TH-302 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, Merck KGaA and potential future collaborators may not generate any revenues or profits from TH-302 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, TH-302 would compete with Gemzar®, marketed by Eli Lilly and Company; Tarceva®, marketed by 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 sale for soft tissue sarcoma, TH-302 could potentially compete with doxorubicin or the combination of doxorubicin and ifosfamide, generic products sold by many manufacturers. There may also be product candidates of which we are not aware at an earlier stage of development that may compete with TH-302 or other product candidates we may develop. In short, 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. Our TH-302 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. 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. 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. 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. Analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information in 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 receptive to 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, healthcare payors and patients, we may not generate product revenues sufficient to attain profitability.

If third-party payors do not 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 products successfully will depend in part on the extent to which 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. 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 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 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. 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. 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 future profitability.

In some foreign countries, particularly in the European Union, 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 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 Agency, or 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. 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

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. Price declines in our common stock could result from general market and economic conditions and a variety of other factors, including:

- adverse results or delays in our or Merck KGaA's clinical trials of TH-302;
- announcements of FDA non-approval of our product candidates, or delays in the FDA or other foreign regulatory agency review process;
- our or Merck KGaA's failure to meet milestones that would have given rise to payments under our agreement with Merck KGaA;
- announcements by Merck KGaA related to the development of TH-302 or announcements related to our agreement with Merck KGaA;
- adverse actions taken by regulatory agencies with respect to our product candidates, clinical trials, manufacturing processes or sales and marketing activities;
- announcements of clinical trial results by us, Merck KGaA or our competitors;
- announcements of technological innovations, patents or new products by us or our competitors;
- regulatory developments in the United States and foreign countries;
- any lawsuit involving us or our product candidates;
- 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 our executive officers, directors and significant stockholders or sales of substantial amounts of common stock; and
- loss 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 warrants, which upon such exercise would result in dilution to our security holders.

If our existing stockholders sell a large number of shares of our common stock or the public market perceives that existing stockholders might sell shares of our common stock, the market price of our common stock could decline significantly. As of March 31, 2014, we had 59,346,025 outstanding shares of common stock, substantially all of which may be sold in the public market without restriction. In addition, a significant number of shares of our common stock are subject to issuance upon the exercise outstanding 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. On October 5, 2009, we issued warrants to purchase an aggregate of 7,329,819 shares of our common stock, at an exercise price of $2.23 per share, which exercise price was subsequently reduced to $2.05 per share on March 16, 2011 under the anti-dilution provisions of the warrants as a result of our March 2011 registered offering of common stock and warrants. As of March 31, 2014, warrants to purchase 1,731,444 shares of common stock issued in March 2011 and warrants to purchase 3,041,879 shares of common stock issued in October 2009 had been exercised. The exercise price and/or the number of shares of common stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including certain issuances of securities at a price equal to less than the then current exercise price, 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 our common stock, as applicable. Although we cannot determine at this time how many of these remaining warrants will ultimately be exercised, the warrants will likely be exercised only if the exercise price is below the market price of our common stock. To the extent the 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. The issuance of additional securities could also have an adverse effect on the market price of our common stock.

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 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

The exhibits listed on the accompanying index to exhibits are filed or incorporated by reference (as stated therein) as part of this Quarterly Report on Form 10-Q.

Exhibit Number	Description
10.1	Advisory Board Agreement by and between the Registrant and David R. Parkinson, M.D.
10.2	Non-Employee Director Compensation Policy, adopted by the Board of Directors of the Registrant on March 20, 2014.
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934 as amended.
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934 as amended.
32.1*	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350.
32.2*	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350.
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

* 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.

SIGNATURES

Pursuant to the requirements 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.

Date: May 1, 2014

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

Date: May 1, 2014

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

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* 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 10.1

THRESHOLD PHARMACEUTICALS, INC.

ADVISORY BOARD AGREEMENT

THIS AGREEMENT is made and entered into as of the 17 January 2014 (the "Effective Date"), by and between Threshold Pharmaceuticals, Inc., a Delaware corporation, with its principal place of business at 170 Harbor Way, Suite 300, South San Francisco, CA 94080 (the "Company"), and David R. Parkinson, M.D., an individual residing at 820 Anderson Lane Sebastopol, CA 95472 (the "Advisor").

1. Engagement of Services. The Company hereby appoints the Advisor as a member of its Advisory Board. The Advisor agrees to serve as a member of the Company's Advisory Board; perform the duties of a member of the Advisory Board; meet with other Advisory Board members as the Company requests; review goals of the Company and develop strategies for achieving them; provide advice, support, leads, contacts, and introductions in the Company's scientific medical and business activities; and consult with the Company regarding scientific, medical, and business development matters, as the Company may request from time to time (collectively, the "Services"). The Advisor will participate in Advisory Board meetings telephonically, or in person if the Company so requires, and otherwise be reasonably available by telephone. The Advisor will perform Services faithfully, diligently, and to the best of the Advisor's skill and ability.

2. Compensation.

In consideration of the Advisor's availability to provide Services, the Company shall pay to the Advisor an hourly fee of $400, not to exceed $10,000 per year, provided that the Company has agreed in advance to the specific projects and scope of consultation that the Advisor will provide.

The Company will also reimburse the Advisor for reasonable travel and other incidental expenses incurred by Advisor in performing the Services, provided the Company has agreed in advance to reimburse such costs, and the Advisor has provided the Company with such receipts or other relevant documentation as the Company may require for such reimbursement.

3. Independent Contractor. The Advisor is an independent contractor and not an employee of the Company. The Advisor has no authority to obligate the Company by contract or otherwise. The Advisor is not eligible for any employee benefits. The Company will not make tax deductions from any amounts payable to Advisor; taxes on such payments shall be the sol**e** responsibility of Advisor.

4. Nonsolicitation and Noncompetition.

(a) During the term of this Agreement and for one (1) year after its termination, the Advisor will not personally or through others (i) recruit, solicit, or attempt to induce any employee or contractor of the Company to terminate his or her employment or contractual relationship with the Company, or (ii) solicit in direct competition with the Company the business of any client or customer of the Company.

(b) During the term of this Agreement and for six (6) months after its termination, Advisor will not, without the prior consent of the Company, engage in any business activity which directly competes with any business then being conducted or planned by the Company of which the Advisor has become aware in the course of providing Services; the foregoing shall not have the effect of preventing Advisor from engaging in any academic research, teaching or related activity.

(c) If any restriction set forth in Sections 4(a) and 4(b) above is found by any court of competent jurisdiction to be unenforceable because it extends for too long a period of time or over too great a range of activities or in too broad a geographic area, it shall be interpreted to extend only over the maximum period of time, range of activities, and geographic area as to which it is enforceable.

5. Company's Proprietary Rights and Nondisclosure. In providing Services, the Advisor will be exposed to, have access to, and be engaged in the development of information (including all tangible and intangible manifestations) relating to inventions, patents, copyrights, trademarks, trade secrets, technology, strategic sales/marketing plans, and business of the Company, and accordingly agrees as follows.

(a) The term "Proprietary Information" shall mean all inventions, works of authorship, trade secrets, business plans, confidential knowledge, data, or any other proprietary information of the Company. By way of illustration but not limitation, "Proprietary Information" includes, without limitation, (a) inventions, ideas, samples, designs, applications, drawings, methods or processes, formulas, trade secrets, data, source and object codes, know-how, improvements, discoveries, developments, designs, and techniques (hereinafter collectively referred to as "Inventions"); and (b) information regarding plans for research, development, new products and service offerings, marketing and selling, forecasts, business plans, budgets and unpublished financial statements, licenses, sales, pricing, profits and costs, distribution arrangements, suppliers and customers, marketing, customer and partner strategies, business development plans, customer and partner lists; and information regarding the skills and compensation of employees of the Company and the Company's internal organization.

(b) The Advisor agrees promptly to disclose in writing and hereby assigns to the Company the Advisor's entire right, title and interest in and to any and all inventions and proprietary information (and all proprietary rights with respect thereto) or any other copyrightable or patentable work, made, conceived, or reduced to practice by Advisor, either alone or jointly with others, in the course of performing Services, without any obligation of the Company to pay royalty or any other consideration. The Advisor agrees that all such inventions and proprietary information are the sole property of the Company and will, at the Company's request, promptly execute a written assignment to the Company of title to any such inventions and proprietary information relating to it and will preserve any such information as part of the proprietary Information of the Company. The Advisor will keep in confidence and trust all Proprietary Information and shall not reproduce, use, or disclose any Proprietary Information or anything related to such information without the prior written consent of the Company, except as

required in performing Services. All Proprietary Information, whether presently existing or developed in the future, shall be the sole property of the Company and its assigns. In addition, the Company and its assigns shall be the sole owner of all intellectual property and other rights in connection with such Proprietary Information.

(c) The provisions of this Agreement are subject to the understanding that the Advisor is affiliated with, employed by, and/or consulting with other institution(s) or entity(ies) and must fulfill certain obligations to the Institutions pursuant to the Institutions' guidelines or policies. If the Advisor is required to disclose Proprietary Information to the Institution pursuant to applicable guidelines or policies, and such information falls within the Company's direct focus or interest, then the Advisor shall promptly notify the Company in writing.

(d) The Advisor will submit to the Company any proposed publication which contains any discussion relating to the Company, the Services, or Proprietary Information. Advisor agrees not to publish or otherwise disclose any such proposed publication without the prior written consent of the Company, which consent shall not be unreasonably withheld. Any such consent shall be given within thirty (30) days of receipt of the proposed publication. The Advisor is free to publish any information that does not relate to the Company or the Services and that does not disclose Proprietary Information.

(e) In the event the Company is unable, after reasonable effort, to secure Advisor's signature on any document needed to apply for or prosecute any patent, copyright, or other right or protection relating to an invention subject to assignment to the Company, the Advisor hereby designates and appoints the Company and its duly authorized officers and agents as Advisor's agent and attorney-in-fact, to act for and on the Advisor's behalf to execute, verify and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyrights, and other rights and protections thereon with the same legal force and effect as if executed by the Advisor. Such appointment shall be irrevocable and coupled with an interest.

6. Nondisclosure of Third-Party Information. The Advisor understands that the Company has received and will receive from third parties information that is confidential or proprietary and subject to restrictions on the Company's use and disclosure ("Third-Party Information"). The Advisor will hold Third-Party Information in the strictest confidence and will not disclose or use Third-Party Information, except as permitted by agreement between the Company and the relevant third party, unless expressly authorized in writing to act otherwise by an officer of the Company.

7. Obligation To Keep Company Informed. The Advisor shall promptly disclose to the Company, or any persons designated by it, any and all proprietary information, whether or not patentable, of which the Advisor becomes aware that relates to Proprietary Information of the Company; however, Advisor shall not be obligated to disclose information received by Advisor from others under a contractual obligation of confidentiality.

8. Prior Inventions. Inventions that the Advisor made prior to the Effective Date are excluded from the scope of this Agreement. For the avoidance of doubt, the advisor should be prepared to demonstrate, if asked, that such inventions have been documented prior to the Advisor signing this agreement.

9. No Conflicting Obligation. The Advisor represents that the Advisor's performance of the Services does not and will not breach or conflict with any agreement to which the Advisor is or later becomes a party. The Advisor has not entered into, and agrees not to enter into during the term of this Agreement any agreement, written or oral, in conflict with this Agreement.

10. No Improper Use of Materials. The Advisor agrees not to bring to the Company or to use in the performance of Services any materials or documents obtained from a present or former employer of the Advisor, the Advisor's employees, or any other person with whom the Advisor has entered into a confidentiality agreement, unless such materials or documents are generally available to the public or the Advisor has authorization for the possession and unrestricted use of such materials. In providing the Services, the Advisor agrees not to breach any obligation of confidentiality that the Advisor has undertaken with the Company or with a third party.

11. Term and Termination. Unless previously terminated or extended, this Agreement will terminate one (1) year from the Effective Date. The Company or Advisor may also terminate this Agreement upon thirty (30) days written notice to the other. The Company may terminate this Agreement immediately upon written notice by the Company to the Advisor in the event of Advisor's material breach of this agreement or any misconduct by Advisor that could have an adverse effect on the business of the Company. Any determination of such breach or misconduct as used herein shall be made in the Company's sole discretion. The obligations set forth in Sections 4, 5, and 6 survive any termination of this Agreement. Upon termination of this Agreement, the Advisor will promptly deliver to the Company all documents and other materials of any nature pertaining to the Services, together with all documents and other items containing or pertaining to any Proprietary Information. The Advisor shall not retain copies of any such documents or other materials after termination of this Agreement.

12. Legal and Equitable Remedies. Because the Advisor's services are personal and unique and because the Advisor may have access to and become acquainted with Proprietary Information, the Company shall have the right to enforce this Agreement and any of its provisions by injunction, specific performance, or other equitable relief without prejudice to any other rights and remedies that the Company may have for a breach of this Agreement, without bond.

13. General Terms. The parties' rights and obligations will bind and inure to the benefit of their respective successors, heirs, executors and administrators, and permitted assigns. Because the nature of the Services is personal, any attempted assignment of Advisor's rights or delegation of Advisor's obligations will be void without the prior written consent of the Company. This Agreement is governed by the laws of the State of Delaware, excluding conflicts of laws principles. If any provision of this Agreement is found by a proper authority to be unenforceable, then that provision shall be severed, and the remainder of this Agreement will continue in full force and effect. This Agreement and its Exhibits constitute the parties' final, exclusive, and complete understanding and agreement with respect to the subject matter hereof, and supersede all prior and contemporaneous understandings and agreements relating to its subject matter. Any waiver, modification, or amendment of any provision of this Agreement shall be effective only if

in writing and signed by the parties to this Agreement. Any notices required or permitted hereunder shall be given to the appropriate party at the address specified below or at such other address as the party shall specify in writing. Such notice shall be deemed given upon personal delivery, or sent by certified or registered mail, postage prepaid, three (3) days after the date of mailing. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together shall constitute one and the same instrument.

The parties hereto have executed this **ADVISORY BOARD AGREEMENT** as of the Effective Date.

THRESHOLD PHARMACEUTICALS, INC.

By: /s/ Harold E. Selick, Ph.D.
Name: Harold E. Selick, Ph.D.
Title: CHIEF EXECUTIVE OFFICER

Date: March19, 2014

ADVISOR

By: /s/ David R. Parkinson, M.D.
Name: David R. Parkinson, M.D.
Tax ID:

Date: March 20, 2014

Exhibit 10.2

THRESHOLD PHARMACEUTICALS, INC.
NON-EMPLOYEE DIRECTOR COMPENSATION POLICY

ADOPTED BY THE BOARD OF DIRECTORS: MARCH 20, 2014

Each member of the board of directors (the "***Board***") of Threshold Pharmaceuticals, Inc. (the "***Company***") who is not an employee of the Company or any parent or subsidiary of the Company (each, a "***Non-Employee Director***") will be eligible to receive cash and equity compensation as set forth in this Threshold Pharmaceuticals, Inc. Non-Employee Director Compensation Policy (this "***Policy***"). The cash and equity compensation described in this Policy will be paid or granted, as applicable, automatically and without further action of the Board to each Non-Employee Director who is eligible to receive such cash or equity compensation, unless such Non-Employee Director declines the receipt of such cash or equity compensation by written notice to the Company. This Policy will become effective on the date of the annual meeting of the Company's stockholders held in 2014, provided that the Threshold Pharmaceuticals, Inc. 2014 Equity Incentive Plan (the "***2014 Plan***") is approved by the Company's stockholders at such annual meeting, and will remain in effect until it is revised or rescinded by further action of the Board. Capitalized terms not explicitly defined in this Policy but defined in the 2014 Plan will have the same definitions as in the 2014 Plan.

1. CASH COMPENSATION.

(a) Annual Fees. Each Non-Employee Director will be eligible to receive the following annual fees for service as (i) a member of the Board and (ii) a member or chairperson of a committee of the Board ("***Committee***") set forth below, as applicable, to be paid in the form of annual retainers:

Board or Committee	Type of Fee	Amount (Per Year)
Board	Retainer Fee	$ 30,000
Audit Committee	Chair Retainer Fee	$ 20,000
	Non-Chair Retainer Fee	$ 11,000
Compensation Committee	Chair Retainer Fee	$ 14,000
	Non-Chair Retainer Fee	$ 11,000
Nominating and Governance Committee	Chair Retainer Fee	$ 14,000
	Non-Chair Retainer Fee	$ 11,000

(b) Expenses. Each Non-Employee Director will be entitled to reimbursement from the Company for all reasonable out-of-pocket expenses incurred by the Non-Employee Director in connection with his or her attendance at Board and Committee meetings.

To the extent that any taxable reimbursements are provided to a Non-Employee Director, they will be provided in accordance with Section 409A of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations and other guidance thereunder and any state law of similar effect, including, but not limited to, the following provisions: (i) the amount of any such expenses eligible for reimbursement during the Non-Employee Director's taxable year may not affect the expenses eligible for reimbursement in any other taxable year; (ii) the reimbursement of an eligible expense must be made no later than the last day of the Non-Employee Director's taxable year that immediately follows the taxable year in which the expense was incurred; and (iii) the right to any reimbursement may not be subject to liquidation or exchange for another benefit.

2. EQUITY COMPENSATION. The options described in this Policy will be granted under the 2014 Plan and will be subject to the terms and conditions of (i) this Policy, (ii) the 2014 Plan and (iii) the forms of option grant notices and option agreements approved by the Board for the grant of options to Non-Employee Directors.

(a) Initial Grants. Each individual who is elected or appointed for the first time to be a Non-Employee Director automatically will be granted, on the date of such initial election or appointment, a nonstatutory stock option to purchase 35,000 shares of Common Stock (an "***Initial Option Grant***").

(b) Annual Grants. On the date of each annual meeting of the Company's stockholders, each individual who is then a Non-Employee Director and will be continuing as a Non-Employee Director following the date of such annual meeting automatically will be granted a nonstatutory stock option to purchase 20,000 shares of Common Stock (an "***Annual Option Grant***"), provided that such individual has served as a Non-Employee Director for at least six (6) months prior to the date of such annual meeting.

(c) Terms of Options.

(i) Exercise Price. The exercise price of each Initial Option Grant and Annual Option Grant will be equal to 100% of the Fair Market Value of the Common Stock subject to the option on the date the option is granted.

(ii) Vesting. Subject to Section 3 below, each Initial Option Grant and Annual Option Grant will vest and become exercisable as follows:

(A) Each Initial Option Grant will vest and become exercisable as to 2.7777% of the shares of Common Stock subject to the option on each monthly anniversary of the date of grant, rounded down to the nearest whole share, subject to the Non-Employee Director's Continuous Service through such dates.

(B) Each Annual Option Grant will vest and become exercisable as to 8.3333% of the shares of Common Stock subject to the option on each monthly anniversary of the date of grant for the first 11 months following the date of grant, rounded down to the nearest whole share, and as to the remaining shares of Common Stock subject to the option on the date of the annual meeting of the Company's stockholders for the year following the year of grant for such option, subject to the Non-Employee Director's Continuous Service through such dates.

3. CERTAIN TRANSACTIONS AND EVENTS.

(a) Fundamental Transaction. The provisions of this Section 3(a) (and not Section 9(c) of the 2014 Plan) will apply to all outstanding Initial Option Grants and Annual Option Grants in the event of a Fundamental Transaction. In the event of a Fundamental Transaction while a Participant remains a Non-Employee Director, the shares of Common Stock at the time subject to each outstanding Initial Option Grant and Annual Option Grant held by such Participant, but not otherwise vested, will automatically vest in full so that each such Initial Option Grant and Annual Option Grant will, immediately prior to the effective date of the Fundamental Transaction, become exercisable for all the shares of Common Stock subject to such Initial Option Grant and Annual Option Grant as fully vested shares and may be exercised for any or all of those vested shares. Immediately following the consummation of the Fundamental Transaction, each Initial Option Grant and Annual Option Grant will terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or Affiliate thereof).

Each Initial Option Grant and Annual Option Grant which is assumed in connection with a Fundamental Transaction will be appropriately adjusted, immediately after such Fundamental Transaction, to apply to the number and class of securities which would have been issuable to the Participant in consummation of such Fundamental Transaction had the Initial Option Grant or Annual Option Grant been exercised immediately prior to such Fundamental Transaction. Appropriate adjustments will also be made to the exercise price payable per share under each outstanding Initial Option Grant and Annual Option Grant, provided that the aggregate exercise price payable for such securities will remain the same. To the extent the actual holders of the Common Stock receive cash consideration for their Common Stock in consummation of the Fundamental Transaction, the successor corporation may, in connection with the assumption of the outstanding Initial Option Grants and Annual Option Grants, substitute one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in such Fundamental Transaction.

(b) Change in Control. In the event of a Change in Control while a Participant remains a Non-Employee Director, the shares of Common Stock at the time subject to each outstanding Initial Option Grant and Annual Option Grant held by such Participant, but not otherwise vested, will automatically vest in full so that each such Initial Option Grant and Annual Option Grant will, immediately prior to the effective date of the Change in Control, become exercisable for all the shares of Common Stock subject to such Initial Option Grant and Annual Option Grant as fully vested shares and may be exercised for any or all of those vested shares. Each such Initial Option Grant and Annual Option Grant will remain exercisable for such fully vested shares until the expiration or sooner termination of the option term in connection with a Change in Control.

Exhibit 31.1

CERTIFICATION

I, Harold E. Selick, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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: May 1, 2014

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

Exhibit 31.2

CERTIFICATION

I, Joel A. Fernandes, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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: May 1, 2014

/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 Quarterly Report of Threshold Pharmaceuticals, Inc (the "Company") on Form 10-Q for the quarter ended March 31, 2014, 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: May 1, 2014

/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 Quarterly Report of Threshold Pharmaceuticals, Inc (the "Company") on Form 10-Q for the quarter ended March 31, 2014, 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: May 1, 2014

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