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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2010

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: 001-33277

SYNTA PHARMACEUTICALS CORP.
(Exact name of registrant as specified in its charter)

Delaware	**04-3508648**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
45 Hartwell Avenue Lexington, Massachusetts	**02421**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(781) 274-8200**

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, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

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

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

As of October 29, 2010, the registrant had 40,554,055 shares of common stock outstanding.

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SYNTA PHARMACEUTICALS CORP.

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

SYNTA PHARMACEUTICALS CORP.

Condensed Consolidated Balance Sheets

(in thousands, except share and per share amounts)

(unaudited)

	September 30, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	$ 34,906	$ 44,155
Marketable securities	19,215	—
Prepaid expenses and other current assets	682	419
Total current assets	54,803	44,574
Property and equipment, net	2,617	3,978
Other assets	461	358
Total assets	$ 57,881	$ 48,910
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,393	$ 3,957
Accrued contract research costs	2,726	2,099
Other accrued liabilities	3,313	4,504
Capital lease obligations	277	1,262
Deferred collaboration revenue	4,572	4,647
Term loan	1,667	—
Total current liabilities	14,948	16,469
Long-term liabilities:		
Capital lease obligations	37	799
Deferred collaboration revenue	3,302	6,731
Term loan	13,333	—
Total long-term liabilities	16,672	7,530
Total liabilities	31,620	23,999
Stockholders' equity:		
Preferred stock, par value $0.0001 per share Authorized: 5,000,000 shares at September 30, 2010 and December 31, 2009; no shares issued and outstanding at September 30, 2010 and December 31, 2009	—	—
Common stock, par value $0.0001 per share Authorized: 100,000,000 shares at September 30, 2010 and December 31, 2009; 40,541,818 and 33,978,300 shares issued and outstanding at September 30, 2010 and December 31, 2009, respectively	4	3
Additional paid-in-capital	368,482	338,491
Accumulated other comprehensive income	2	—
Accumulated deficit	(342,227)	(313,583)
Total stockholders' equity	26,261	24,911
Total liabilities and stockholders' equity	$ 57,881	$ 48,910

See accompanying notes to consolidated financial statements.

SYNTA PHARMACEUTICALS CORP.

Condensed Consolidated Statements of Operations

(in thousands, except share and per share amounts)

(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Collaboration revenues:				
License and milestone revenue	$ 1,143	$ 117,171	$ 3,429	$ 124,558
Cost sharing reimbursements, net	2,240	13,234	7,337	15,007
Total collaboration revenues	3,383	130,405	10,766	139,565
Operating expenses:				
Research and development	11,023	9,084	30,906	41,821
General and administrative	2,591	3,149	8,393	10,224
Restructuring	—	—	—	1,236
Total operating expenses	13,614	12,233	39,299	53,281
Income (loss) from operations	(10,231)	118,172	(28,533)	86,284
Other (expense) income:				
Other (expense) income, net	(31)	(53)	(111)	(159)
Net income (loss)	$ (10,262)	$ 118,119	$ (28,644)	$ 86,125
Net income (loss) per common share:				
Basic	$ (0.25)	$ 3.49	$ (0.71)	$ 2.54
Diluted	$ (0.25)	$ 3.48	$ (0.71)	$ 2.53
Weighted-average common shares outstanding:				
Basic	40,382,862	33,882,760	40,062,453	33,877,340
Diluted	40,382,862	33,904,842	40,062,453	34,077,512

See accompanying notes to consolidated financial statements.

SYNTA PHARMACEUTICALS CORP.

Condensed Consolidated Statements of Cash Flows

(in thousands)

(unaudited)

	Nine Months Ended September 30,	
	2010	**2009**
Cash flows from operating activities:		
Net income (loss)	$ (28,644)	$ 86,125
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Stock-based compensation expense	3,185	3,464
Depreciation and amortization	1,470	1,948
Changes in operating assets and liabilities:		
Collaboration receivable	(189)	16,000
Restricted cash	—	68
Prepaid expenses and other current assets	(74)	430
Other assets	(103)	—
Accounts payable	(1,564)	1,205
Accrued contract research costs	627	(9,539)
Other accrued liabilities	(1,191)	1,284
Deferred collaboration revenue	(3,504)	(114,236)
Collaboration payable	—	(6,294)
Net cash used in operating activities	(29,987)	(19,545)
Cash flows from investing activities:		
Purchases of marketable securities	(19,213)	(39,303)
Maturities of marketable securities	—	43,866
Purchases of property and equipment	(109)	(514)
Net cash (used in) provided by investing activities	(19,322)	4,049
Cash flows from financing activities:		
Proceeds from issuance of common stock and exercise of common stock options, net of transaction costs	26,807	50
Proceeds from term loan	15,000	—
Payment of capital lease obligations	(1,747)	(1,796)
Net cash provided by (used in) financing activities	40,060	(1,746)
Net decrease in cash and cash equivalents	(9,249)	(17,242)
Cash and cash equivalents at beginning of period	44,155	52,045
Cash and cash equivalents at end of period	$ 34,906	$ 34,803
Supplemental disclosure of noncash operating, investing and financing activities:		
Acquisition of equipment under capital leases	$ —	$ 58
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 120	$ 255

See accompanying notes to consolidated financial statements.

SYNTA PHARMACEUTICALS CORP.

Notes to Consolidated Financial Statements

(1) Nature of Business

Synta Pharmaceuticals Corp. (the Company) was incorporated in March 2000 and commenced operations in July 2001. The Company is a biopharmaceutical company focusing on discovering, developing and commercializing small molecule drugs to extend and enhance the lives of patients with severe medical conditions, including cancer and chronic inflammatory diseases.

The Company is subject to risks common to emerging companies in the drug development and pharmaceutical industry including, but not limited to, uncertainty of product development and commercialization, lack of marketing and sales history, dependence on key personnel, uncertainty of market acceptance of products, product liability, uncertain protection of proprietary technology, potential inability to raise additional financing and compliance with the U.S. Food and Drug Administration (FDA) and other government regulations.

(2) Summary of Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements are unaudited, have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments necessary to present fairly the Company's financial position as of September 30, 2010 and the consolidated results of operations and cash flows for the three months and nine months ended September 30, 2010 and 2009. The preparation of financial statements in conformity with accounting principles generally accepted in the United States (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from these estimates. The results of operations for the three months and nine months ended September 30, 2010 are not necessarily indicative of the results to be expected for the year ending December 31, 2010 or for any other interim period or any other future year. For more complete financial information, these condensed financial statements, and the notes hereto, should be read in conjunction with the audited financial statements for the year ended December 31, 2009 included in the Company's Annual Report on Form 10-K.

Principles of Consolidation

The consolidated financial statements include the financial statements of the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Significant items subject to such estimates and assumptions include contract research accruals, recoverability of long-lived assets, measurement of stock-based compensation, and the periods of performance under its collaborative research and development agreements. The Company bases its estimates on historical experience and various other assumptions that management believes to be reasonable under the circumstances. Changes in estimates are recorded in the period in which they become known. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase and an investment in a U.S. Treasury money market fund to be cash equivalents. Changes in cash and cash equivalents may be affected by shifts in investment portfolio maturities, as well as actual cash disbursements to fund operations.

The primary objective of the Company's investment activities is to preserve its capital for the purpose of funding operations and the Company does not enter into investments for trading or speculative purposes. The Company invests in money market funds and high-grade, short-term commercial paper, which are subject to minimal credit and market risk. The Company's cash is deposited in a highly rated financial institution in the United States. Declines in interest rates, however, would reduce future investment income.

Marketable Securities

Marketable securities consist of investments in government and government agency obligations that are classified as available-for-sale. Since these securities are available to fund current operations they are classified as current assets on the consolidated balance sheets.

The Company adjusts the cost of available-for-sale debt securities for amortization of premiums and accretion of discounts to maturity. The Company includes such amortization and accretion in interest and investment income. Realized gains and losses and declines in value, if any, that the Company judges to be other-than-temporary on available-for-sale securities are reported in interest and investment income. To determine whether an other-than-temporary impairment exists, the Company considers whether it intends to sell the debt security and, if the Company does not intend to sell the debt security, it considers available evidence to assess whether it is more likely than not that it will be required to sell the security before the recovery of its amortized cost basis. During the three and nine months ended September 30, 2010 and 2009, the Company determined that no securities were other-than-temporarily impaired.

Marketable securities are stated at fair value, including accrued interest, with their unrealized gains and losses included as a component of accumulated other comprehensive loss, which is a separate component of stockholders' equity. The fair value of these securities is based on quoted market prices. Realized gains and losses are determined on the specific identification method. During the three months and nine months ended September 30, 2010 and 2009, the Company recorded no realized gains or losses on marketable securities.

Revenue Recognition

Collaboration and License Agreements

The Company's principal source of revenue is from collaborative research and development agreements, which may include upfront license payments, development milestones, reimbursement of research and development costs, profit sharing payments, sales milestones and royalties. The application of accounting rules requires subjective analysis and requires management to make estimates and assumptions about whether deliverables within multiple-element arrangements are separable from the other aspects of the contractual arrangement into separate units of accounting and to determine the fair value to be allocated to each unit of accounting.

The Company evaluates the multiple deliverables within its collaborations to determine whether the delivered elements that are the obligation of the Company have value to its collaborators on a stand-alone basis and whether objective reliable evidence of fair value of the undelivered items exists. Deliverables that meet these criteria are considered a separate unit of accounting. Deliverables that do not meet these criteria are combined and accounted for as a single unit of accounting. The appropriate recognition of revenue is then applied to each separate unit of accounting.

The Company's deliverables under its collaboration agreements, including the related rights and obligations, contractual cash flows and performance periods, are more fully described in Notes 9 and 10. Certain of the deliverables have been combined as a single unit of accounting.

The cash flows associated with the single unit of accounting from the research and development portions of the Company's collaborations are recognized as revenue using a time-based model. Under this model, cash flow streams are recognized as revenue over the estimated performance period. Upon achievement of milestones, as defined in the collaboration agreements, revenue is recognized to the extent the accumulated service time, if any, has occurred. The remainder is deferred and recognized as revenue ratably over the remaining estimated performance period. A change in the period of time expected to complete the deliverable is accounted for as a change in estimate on a prospective basis. Revenue is limited to amounts that are non-refundable and that the Company's collaborators are contractually obligated to pay to the Company.

Royalty revenues are based upon a percentage of net sales. Royalties from the sales of products included in the Roche Agreement will be recorded on the accrual basis when results are reliably measurable, collectibility is reasonably assured and all other revenue recognition criteria are met. Sales milestones, which are based upon the achievement of certain agreed-upon sales thresholds, will be recognized in the period in which the respective sales threshold is achieved and collectibility is reasonably assured.

Deferred Collaboration Revenue

Consistent with the Company's policy on revenue recognition, deferred collaboration revenue represents cash received and amounts earned and invoiced for licensing and option fees and milestones, as well as cash received and amounts invoiced for research and development services to be performed by the Company. Such amounts are reflected as deferred collaboration revenue until revenue can be recognized under the Company's revenue recognition policy. Deferred collaboration revenue is classified as current if management believes the Company will complete the earnings process and be able to recognize the deferred amount as revenue within 12 months of the balance sheet date. At September 30, 2010, total deferred collaboration revenue was approximately $7.9 million, of which $4.6 million is current.

Stock-Based Compensation

The Company recognizes stock-based compensation expense based on the fair value of stock options granted to employees, officers and directors. The Company uses the Black-Scholes option pricing model as it is the most appropriate valuation method for its option grants. The Black-Scholes model requires inputs for risk-free interest rate, dividend yield, volatility and expected lives of the options. Since the Company has a limited history of stock activity, expected volatility for the period from April 1, 2009 through September 30, 2010 was based upon the weighted average historical volatility data of the Company's common stock and the historical volatility data from several guideline public biotechnology companies similar in size and value to the Company that also have stock compensation plans with similar terms. Prior to April 1, 2009, expected volatility was based solely on historical data from several guideline similar public biotechnology companies with similar stock compensation plans and terms. The Company will continue using its historical volatility and other similar public entity volatility information until its historical volatility alone is relevant to measure expected volatility for future option grants. The Company estimates the forfeiture rate based on historical data. Based on an analysis of historical forfeitures, the Company has applied a forfeiture rate of 10% to all options that vest upon completion of the first year of service following the date of grant. The analysis is re-evaluated at least annually and the forfeiture rate is adjusted as necessary. The risk-free rate for periods within the expected life of the option is based on the U.S. Treasury yield curve in effect at the time of the grant. The expected lives for options granted represent the period of time that options granted are expected to be outstanding. The Company uses the simplified method for determining the expected lives of options.

For awards with graded vesting, the Company allocates compensation costs on a straight-line basis over the requisite service period. The Company amortizes the fair value of each option over each option's service period, which is generally the vesting period.

The Company accounts for stock options issued to non-employees by valuing and remeasuring such stock options to the current fair value until the performance date has been reached.

For the three months and nine months ended September 30, 2010 and 2009, the fair value of each employee stock option award was estimated on the date of grant based on the fair value method using the Black-Scholes option pricing valuation model with the following weighted average assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Risk-free interest rate	1.98%	2.94%	2.74%	2.04%
Expected life in years	6.25 years	6.25 years	6.25 years	5.78 years
Volatility	102%	98%	102%	94%
Expected dividend yield	—	—	—	—

The effect of stock-based compensation expense during the three months and nine months ended September 30, 2010 and 2009 was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Stock-based compensation expense by type of award:				
Employee stock options	$ 882	$ 1,208	$ 2,876	$ 3,400
Non-employee stock options	—	—	—	17
Restricted stock	81	44	309	47
Total stock-based compensation expense	$ 963	$ 1,252	$ 3,185	$ 3,464
Effect of stock-based compensation expense by line item:				
Research and development	$ 758	$ 966	$ 2,443	$ 2,646
General and administrative	205	286	742	818
Total stock-based compensation expense included in net loss	$ 963	$ 1,252	$ 3,185	$ 3,464

Unrecognized stock-based compensation expense as of September 30, 2010 was as follows (in thousands):

	Unrecognized stock compensation expense as of September 30, 2010	Weighted average remaining period (in years)
Employee stock options	$ 4,340	1.50
Restricted stock	241	0.57
Total	$ 4,581	1.45

Certain of the employee stock options granted by the Company are structured to qualify as incentive stock options (ISOs). Under current tax regulations, the Company does not receive a tax deduction for the issuance, exercise or disposition of ISOs if the employee meets certain holding requirements. If the employee does not meet the holding requirements, a disqualifying disposition occurs, at which time the Company may receive a tax deduction. The Company does not record tax benefits related to ISOs unless and until a qualifying disposition is reported. In the event of a disqualifying disposition, the entire tax benefit is recorded as a reduction of income tax expense. The Company has not recognized any income tax benefit for the share-based compensation arrangement due to the fact that the Company does not believe it is more likely than not it will recognize any deferred tax assets from such compensation cost recognized in the current period.

Comprehensive Loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions, and other events and circumstances from non-owner sources. Changes in unrealized gains and losses on marketable securities represents the only difference between the Company's net loss and comprehensive loss.

For the three months and nine months ended September 30, 2010 and 2009, comprehensive loss was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Net income (loss)	$ (10,262)	$ 118,119	$ (28,644)	$ 86,125
Changes in other comprehensive income (loss):				
Unrealized holding gains (losses) on marketable securities	2	(12)	2	(12)
Total comprehensive income (loss)	$ (10,260)	$ 118,107	$ (28,642)	$ 86,113

Segment Reporting

Operating segments are determined based on the way management organizes its business for making operating decisions and assessing performance. The Company has only one operating segment, the discovery, development and commercialization of drug products.

Basic and Diluted Loss Per Common Share

Net income (loss) per share is computed using the weighted average number of common shares outstanding during the period. Diluted net income (loss) per common share is computed using the weighted average number of common shares outstanding and the weighted average dilutive potential common shares outstanding using the treasury stock method.

For the three months and nine months ended September 30, 2010, diluted net loss per share is the same as basic net loss per share as the inclusion of weighted average shares of unvested restricted common stock and common stock issuable upon the exercise of stock options would be anti-dilutive.

For the three months and nine months ended September 30, 2009, common stock options calculated on a weighted average basis with exercise prices greater than the average market prices of the Company's common stock for these periods are not included in the computation of diluted earnings per share as their impact would have been anti-dilutive.

The following table sets forth the computation for basic and diluted net income (loss) per common share (in thousands, except per share information):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Income (Numerator):				
Net income (loss) for basic and diluted calculations	$ (10,262)	$ 118,119	$ (28,644)	$ 86,125
Shares (Denominator):				
Weighted-average shares for basic net income (loss) per share	40,383	33,883	40,062	33,877
Effect of dilutive securities	—	22	—	201
Weighted-average shares for diluted net income (loss) per share	40,383	33,905	40,062	34,078
Basic net income (loss) per common share	$ (0.25)	$ 3.49	$ (0.71)	$ 2.54
Diluted net income (loss) per common share	$ (0.25)	$ 3.48	$ (0.71)	$ 2.53
Outstanding securities not included in the computation of diluted net income (loss) per common share as their inclusion would be anti-dilutive:				
Common stock options	5,401	4,869	5,401	3,920
Unvested restricted stock	126	60	126	51
	5,527	4,929	5,527	3,971

Recent Accounting Pronouncements

In April 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2010-17, "Milestone Method of Revenue Recognition—a consensus of the FASB Emerging Issues Task Force" (ASU 2010-17). This ASU provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research and development transactions. ASU 2010-17 is effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. Early adoption is permitted. The Company is currently evaluating the impact of adopting this pronouncement.

(3) Cash and Cash Equivalents

A summary of cash, cash equivalents and available-for-sale marketable securities held by the Company as of September 30, 2010 and December 31, 2009 is as follows:

	September 30, 2010			
	Cost	Unrealized gains	Unrealized losses	Fair value
	(in thousands)			
Cash and cash equivalents:				
Cash and money market funds (Level 1)	$ 34,906	$ —	$ —	$ 34,906
Marketable securities:				
U.S. government and government sponsored entities due within 1 year of date of purchase (Level 2)	19,213	2	—	19,215
Total cash, cash equivalents and marketable securities	$ 54,119	$ 2	$ —	$ 54,121

	December 31, 2009			
	Cost	Unrealized gains	Unrealized losses	Fair value
	(in thousands)			
Cash and cash equivalents:				
Cash and money market funds (Level 1)	$ 36,367	$ —	$ —	$ 36,367
U.S. government sponsored entities due within 3 months of date of purchase (Level 2)	7,788	—	—	7,788
Total cash and cash equivalents	$ 44,155	$ —	$ —	$ 44,155

(4) Fair Value Measurements

The fair value of the Company's financial instruments reflects the amounts that would be received upon sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy has the following three levels:

Level 1—quoted prices in active markets for identical assets and liabilities.

Level 2—observable inputs other than quoted prices in active markets for identical assets and liabilities.

Level 3—unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. As of September 30, 2010, the Company's financial assets valued based on Level 1 inputs consisted of cash and cash equivalents in a U.S. Treasury money market fund and its financial assets valued based on Level 2 inputs consisted of government and government-agency bonds that are guaranteed by the U.S. government. As of September 30, 2010, the Company had no financial liabilities that were subject to fair value measurement.

(5) Property and Equipment

Property and equipment consist of the following:

	September 30, 2010	December 31, 2009
	(in thousands)	
Laboratory equipment	$ 12,387	$ 12,337
Leasehold improvements	4,513	4,495
Computers and software	2,165	2,128
Furniture and fixtures	1,050	1,046
	20,115	20,006
Less accumulated depreciation and amortization	(17,498)	(16,028)
	$ 2,617	$ 3,978

Depreciation and amortization expenses of property and equipment, including equipment purchased under capital leases, were approximately $473,000 and $604,000 for the three months ended September 30, 2010 and 2009, respectively, and $1,470,000 and $1,948,000 for the nine months ended September 30, 2010 and 2009, respectively.

(6) Stockholders' Equity

Public Offering

In January 2010, the Company raised approximately $28.8 million in gross proceeds from the sale of an aggregate of 6,388,889 shares of its common stock at $4.50 per share in an underwritten public offering, including 5,555,556 shares in the initial closing and 833,333 shares in a second closing for the full exercise of the over-allotment option granted to the underwriters. The net offering proceeds after deducting approximately $2.1 million for underwriters' discounts, fees and commissions, legal, accounting, printing, listing and filing fees, and miscellaneous expenses were approximately $26.7 million.

(7) Stock Plans

The Company's 2006 Stock Plan provides for the grant of incentive stock options, nonstatutory stock options and non-vested stock to employees, officers, directors and consultants to the Company. A total of 5,100,000 shares of common stock are currently reserved for issuance under the 2006 Stock Plan. The 2006 Stock Plan contains an "evergreen" provision, which provides for an annual increase based on the lesser of 1,300,000 shares, 5% of the Company's then outstanding shares of common stock, or such other amount as the board of directors may determine. In February 2010, the board of directors determined not to increase the number of shares reserved. The administration of the 2006 Stock Plan is under the general supervision of the compensation committee of the board of directors. The exercise price of the stock options is determined by the compensation committee of the board of directors, provided that incentive stock options are granted at not less than fair market value of the common stock on the date of grant and expire no later than ten years from the date the option is granted. Options vest over one to four years.

As of September 30, 2010, under its 2001 Stock Plan, which was terminated in March 2006, the Company had options outstanding to purchase 1,987,703 shares of its common stock and had no shares available for future issuance.

As of September 30, 2010, under its 2006 Stock Plan, the Company had options outstanding to purchase 3,412,830 shares of its common stock, had outstanding 126,232 restricted shares of common stock and had available 1,408,005 shares available for future issuance.

The following table summarizes stock option activity during the nine months ended September 30, 2010:

	Shares	Weighted average exercise price
Outstanding at January 1	4,900,598	$ 8.95
Options granted	1,209,142	3.99
Options exercised	(50,281)	2.35
Options cancelled	(658,926)	8.08
Outstanding at September 30	5,400,533	$ 8.01
Exercisable at September 30	3,609,194	$ 9.71

The weighted-average grant date fair values of options granted during the three months ended September 30, 2010 and 2009 were $2.53 and $1.90, respectively, and during the nine months ended September 30, 2010 and 2009 were $3.25 and $1.98, respectively.

Non-Vested ("Restricted") Stock Awards With Service Conditions

The Company's share-based compensation plan provides for awards of restricted shares of common stock to senior management and non-employee directors. Restricted stock awards are subject to forfeiture if employment or service terminates during the prescribed retention period. Restricted shares issued to non-employee directors and senior management vest over the service period.

The following table summarizes unvested restricted shares during the nine months ended September 30, 2010:

	Shares	Weighted average grant date fair value
Outstanding at January 1	48,107	$ 5.14
Granted	155,719	3.63
Vested	(46,223)	3.86
Cancelled	(31,371)	5.48
Outstanding at September 30	126,232	$ 3.66

(8) Other Accrued Liabilities

Other accrued liabilities consist of the following:

	September 30, 2010	December 31, 2009
	(in thousands)	
Compensation and benefits	$ 1,668	$ 2,792
Professional fees	1,278	1,229
Other	367	483
	$ 3,313	$ 4,504

(9) Collaborative License Agreement with Roche

In December 2008, as amended in February 2010, the Company and Roche entered into a collaborative license agreement (the Roche Agreement) to discover, develop, and commercialize small-molecule drugs targeting calcium release-activated calcium modulator (CRACM) channels. The goal of this alliance is to develop a novel category of oral, disease-modifying agents for the treatment of rheumatoid arthritis, asthma, chronic obstructive pulmonary disease, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. The Roche Agreement consists of the following funding streams: an upfront license payment, product development milestones, reimbursements of certain research and development costs, sales milestones and product royalty payments.

Under the terms of the Roche Agreement, Roche funds research and development to be conducted by the Company, which includes discovery and certain early development activities for the Company's novel CRACM inhibitors. Roche will receive worldwide rights to develop and commercialize certain products identified prior to the end of the research period. For these licensed products, Roche is responsible for development and commercialization, while the Company retains certain co-development and co-promotion rights.

Pursuant to the Roche Agreement, the Company received a non-refundable upfront license payment of $16 million in January 2009. Roche will reimburse all of the Company's research, preclinical development and clinical development costs based upon research and development plans agreed to by the parties. These costs include committed research support over the initial two year research period. In October 2010, Roche notified the Company that it had elected to not extend the research term, which will conclude on December 31,2010. As of September 30, 2010, the Company has received approximately $19.1 million in research and development support under the Roche Agreement.

The Company is eligible to receive additional payments, for each of three licensed products, should specified development and commercialization milestones be successfully achieved. Development milestones across multiple indications of up to $245 million could be earned for the first product, and up to half of this amount could be earned for each of the second and third products. Commercialization milestones of up to $170 million could be earned for each of three products. The Company will receive tiered royalties on sales of all approved, marketed products. Roche may terminate the agreement on a licensed compound-by-licensed compound basis upon providing advance written notice, but may not do so with respect to all licensed compounds until after a specified date.

The $16 million non-refundable upfront license payment is being recognized ratably using the time-based model over the estimated 3.5 year performance period. Under the Roche Agreement, the Company recognized $1.1 million of license revenue in each of the three months ended September 30, 2010 and 2009, and $3.4 million in each of the nine months ended September 30, 2010 and 2009. Reimbursements of research and development costs to the Company by Roche are recorded as cost sharing revenue in the period in which the related research and development costs are incurred. Under the Roche Agreement, the Company recognized $2.2 million and $3.2 million of cost sharing revenue in the three months ended September 30, 2010 and 2009, respectively, and $7.3 million and $8.3 million in the nine months ended September 30, 2010 and 2009, respectively. Development milestones will be recognized as collaboration revenue using the time-based model over the same performance period. No development milestones have been achieved as of September 30, 2010.

(10) Collaborative Development, Commercialization and License Agreement with GSK

In 2007, the Company and GlaxoSmithKline (GSK) entered into a global collaborative development, commercialization and license agreement (the GSK Agreement) for the joint development and commercialization of elesclomol. The GSK Agreement consisted of the following funding streams: an upfront license payment, product development milestones, operational milestones, reimbursements of certain development costs, sales milestones, profit sharing payments and product royalty payments. In 2009, following the suspension of the Company's global Phase 3 clinical trial of elesclomol plus paclitaxel in metastatic melanoma, called the SYMMETRY trial, GSK terminated the GSK Agreement effective September 10, 2009. In accordance with the termination provisions of the GSK Agreement, all rights to the elesclomol program were returned to the Company. The Company may continue to develop elesclomol alone or with another partner and may pay GSK a low single-digit royalty on any potential future sales of elesclomol.

The $80 million non-refundable upfront license payment, together with $50 million in non-refundable operational milestones, the Company received from GSK were being recognized ratably using the time-based model over the estimated 15-year performance period. In the three months and nine months ended September 30, 2009, the Company recognized $116.0 million and $121.1 million, respectively, of license and milestone revenue under the GSK Agreement. Upon the effectiveness of the termination of the GSK Agreement in the third quarter of 2009, the Company accelerated the recognition of approximately $114.6 million of remaining deferred revenue from upfront payments and milestones received under the GSK Agreement as it had no further obligation for deliverables under the GSK Agreement.

Certain costs incurred by GSK, which related to the development of elesclomol in metastatic melanoma, were the Company's responsibility and had been recognized as a reduction of revenue under the GSK Agreement in the statement of operations. The requirement to pay the cumulative GSK cost sharing reimbursements did not survive termination of the GSK Agreement and in the third quarter of 2009, upon the effectiveness of the termination of the GSK Agreement, the Company reversed approximately $10 million of cost sharing reimbursement liabilities as collaboration revenue.

(11) Term Loan with General Electric Capital Corporation

On September 30, 2010, the Company entered into a $15 million loan and security agreement with General Electric Capital Corporation (GECC) and one other lender, all of which was funded at the closing on September 30, 2010 (the GECC Term Loan). Interest on the borrowings under the GECC Term Loan accrues at an annual rate of 9.75%. The Company will make interest-only payments through June 2011, followed by 27 equal monthly payments of principal plus accrued interest on the outstanding balance. In addition to the interest payable under the GECC Term Loan, the Company paid origination fees in the amount of $150,000 and is obligated to pay an exit fee of $450,000 at the time of the final payment of the outstanding principal. These amounts are being amortized and accreted, respectively, to interest expense over the term of the GECC Term Loan. The Company paid approximately $160,000 of legal fees and expenses in connection with the GECC Term Loan. These expenses have been deferred and, together with the $150,000 origination fees, are included in other assets, and will be expensed over the term of the GECC Term Loan. No warrants were issued in connection with the GECC Term Loan. The Company may prepay the full amount of the GECC Term Loan, subject to prepayment premiums under certain circumstances.

The GECC Term Loan is secured by substantially all of the Company's assets, except its intellectual property. The Company has granted GECC a springing security interest in its intellectual property in the event the Company is not in compliance with certain cash burn covenants, as defined. The GECC Term Loan contains restrictive covenants, including the requirement for the Company to receive prior written consent of GECC to enter into loans, other than up to $4.0 million of equipment financing, restrictions on acquisitions, and customary default provisions that include material adverse events, as defined. In addition, at the time of the closing of the GECC Term Loan, the Company was required to repay approximately $787,000 of remaining principal outstanding under its existing equipment leases with GECC.

Future principal payments under the GECC Term Loan as of September 30, 2010 are approximately as follows:

Year Ending December 31,		
2010	$	—
2011		3,333
2012		6,667
2013		5,000
	$	15,000

(12) Subsequent Event—Equity Line of Credit

On October 4, 2010, the Company entered into a common stock purchase agreement (Purchase Agreement) with Azimuth Opportunity Ltd. (Azimuth) pursuant to which the Company obtained an equity line of credit facility (Facility) under which it may sell, in its sole discretion, and Azimuth is committed to purchase, subject to the terms and conditions set forth in the Purchase Agreement, up to $35 million of the Company's common stock, or 8,106,329 shares of common stock, whichever is fewer, over the 18-month term of the agreement. Each draw down is limited in size, unless otherwise mutually agreed by the parties, to the lesser of (i) certain agreed-upon draw down amounts (the largest of which is $4.25 million), based on the threshold price selected by the Company for the draw down, and (ii) 2.5% of the Company's market capitalization at the time of such draw down. Azimuth is not required to purchase shares of the Company's common stock if the threshold price is less than $2.00 per share. The per share price of the shares sold in each draw down will be determined based on the daily volume weighted average price of the Company's common stock on each trading day during the draw down period, less a discount ranging from 4.875% to 6%. The Purchase Agreement also provides that, from time to time and in the Company's sole discretion, the Company may grant Azimuth the right to exercise one or more options to purchase additional shares of common stock during each draw down pricing period for the amount of shares based upon the maximum option dollar amount and the option threshold price specified by the Company. There were no transaction fees or warrants issued by the Company to Azimuth in connection with execution of the Purchase Agreement. Shares under the Facility, if issued, will be registered under the Company's registration statement on Form S-3 declared effective by the Securities and Exchange Commission on August 28, 2008. Upon each sale of common stock to Azimuth, the Company will pay to Reedland Capital Partners a placement fee equal to 1.0% of the aggregate dollar amount received by the Company from such sale. To date, no shares have been sold to Azimuth under the Facility. The Purchase Agreement may be terminated by either party at any time.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read this discussion together with the consolidated financial statements, related notes and other financial information included elsewhere in this Quarterly Report on Form 10-Q. The following discussion may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2009 filed with the Securities and Exchange Commission, as supplemented under the heading "Risk Factors" in Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2010. These risks could cause our actual results to differ materially from any future performance suggested below.

Overview

We are a biopharmaceutical company focused on discovering, developing, and commercializing small molecule drugs to extend and enhance the lives of patients with severe medical conditions, including cancer and chronic inflammatory diseases. We have two clinical-stage drug candidates and several drug candidates in the preclinical and discovery stages. Each of our drug candidates was discovered and developed internally using our proprietary, unique chemical compound library and integrated discovery engine. We retain all rights to our drug candidates and programs, with the exception of our preclinical-stage calcium release activated calcium modulator, or CRACM, program which is partnered with Hoffmann-La Roche, or Roche.

We believe that our competitive advantages include the clinical and commercial potential of our drug candidates; the strength of our drug discovery platform; our ability to effectively manage large-scale clinical programs; our ability to enter into strategic partnerships with leading multinational pharmaceutical companies; and our network of research and clinical collaborations with leading investigators and institutions. We believe these competitive advantages provide us with multiple, sustainable-growth opportunities.

We were incorporated in March 2000 and commenced operations in July 2001. Since that time, we have been principally engaged in the discovery and development of novel drug candidates. We have funded our operations principally with $306.7 million in net proceeds from private and public offerings of our common stock and Series A convertible preferred stock, including $26.7 million in net proceeds from the sale of 6,388,889 shares of our common stock at $4.50 per share in an underwritten public offering that was completed in January 2010, and $15.0 million in gross proceeds from a term loan that was executed in September 2010 with General Electric Capital Corporation, or GECC, and one other lender, referred to as the GECC Term Loan. In October 2010, we entered into a common share purchase agreement, or Purchase Agreement, with Azimuth Opportunity Ltd., or Azimuth, pursuant to which we obtained a committed equity line of credit facility, or Facility, under which we may sell up to a maximum of $35 million of our common stock , or 8,106,329 shares of common stock, whichever is fewer, over the 18-month term of the agreement, subject to certain conditions and limitations.

In addition to raising capital from financing activities, we have also received substantial capital from partnering activities. In October 2007, we entered into a global collaborative development, commercialization and license agreement with GlaxoSmithKline, or GSK, for the joint development and commercialization of elesclomol, one of our oncology drug candidates, which we refer to as the GSK Agreement. On June 10, 2009, following the suspension of our global Phase 3 clinical trial of elesclomol plus paclitaxel in metastatic melanoma, called the SYMMETRY trial, we received written notice from GSK of their intent to terminate the GSK Agreement. The collaboration terminated on September 10, 2009. In December 2008, as amended in February 2010, we entered into a collaborative license agreement with Roche, or the Roche Agreement, for our CRACM inhibitor program, which is currently in the lead optimization stage. As of September 30, 2010, we have received $165.1 million in nonrefundable partnership payments under these agreements with GSK and with Roche, including $96 million in upfront payments, $50 million in operational milestones and $19.1 million in research and development funding, which, together with the net cash proceeds from equity financings, the GECC Term Loan and the exercise of common stock warrants and options, provided aggregate net cash proceeds of approximately $488.2 million. We have also generated funds from government grants, equipment lease financings and investment income. We are engaged in preliminary partnership discussions for a number of our programs, which may provide us with additional financial resources if consummated.

We have devoted substantially all of our capital resources to the research and development of our drug candidates. Since our inception, we have had no revenues from product sales. As of September 30, 2010, we had an accumulated deficit of $342.2 million. We expect to incur significant operating losses for the foreseeable future as we advance our drug candidates from discovery through preclinical development and clinical trials, and seek regulatory approval and eventual commercialization. We will need to generate significant revenues from product sales to achieve future profitability and may never do so.

Oncology Programs

We have two clinical-stage programs and one preclinical-stage program in oncology:

STA-9090 (Hsp90 Inhibitor)

STA-9090 is a potent, injectable small molecule Hsp90 inhibitor drug candidate, with a novel chemical structure that is distinct from 17-AAG (tanespimycin) and other first generation, ansamycin-derivative Hsp90 inhibitors, such as IPI-504 (retaspimycin). Many of the known oncogenic proteins that play major roles in pathogenesis of solid tumor and hematologic malignancies are client proteins of Hsp90. By inhibiting Hsp90, STA-9090 causes the degradation of multiple client proteins and the subsequent death of cancer cells dependent on these proteins. STA-9090 has shown potent anti-cancer activity in a broad range of solid and hematologic cancers both *in vitro* and *in vivo*, as well as substantially greater potency and improved safety relative to first generation Hsp90 inhibitors. In clinical trials, STA-9090 has shown promising signs of single-agent clinical activity and an acceptable safety profile, without the serious liver and other toxicities observed with the first generation Hsp90 inhibitors nor the ocular/visual toxicities observed with some of the next generation Hsp90 inhibitors.

STA-9090 potently inhibits Hsp90, a chaperone protein required for the proper folding and activation of other cellular proteins, particularly kinases. Many of these "client proteins" of Hsp90—such as AKT, BCR-ABL, BRAF, KIT, MET, EGFR, FLT3, HER2, PDGFRA, VEGFR—have been shown to be critical to cancer cell growth, proliferation, and survival and are the targets of clinically validated and approved cancer drugs such as Gleevec, Avastin, Herceptin, Sutent, Nexavar, Tarceva, and Erbitux. In preclinical studies, inhibiting Hsp90 causes the degradation of multiple client proteins and leads to cancer cell death. Because mutated kinases which no longer respond to treatment with kinase inhibitors remain dependent on Hsp90 for their activity, inhibiting Hsp90 offers the potential for treating cancers that have become resistant to targeted therapies such as kinase inhibitors. We believe that inhibiting kinases indirectly, by disrupting the chaperone activities of Hsp90, provides two advantages: first, a means to simultaneously attack multiple cancer-promoting kinases; and second, an ability to kill tumor cells with mutated kinases that have lost responsiveness to a direct kinase inhibitor.

STA-9090 Preclinical Results

Experiments conducted by us and by our collaborators at the Dana-Farber Cancer Institute, Brigham and Women's Hospital in Boston, the University of Massachusetts Medical School in Worcester, The Ohio State University, University of Texas Health Center at San Antonio, and others have shown that STA-9090:

- potently inhibits many critical oncogenic proteins including HIF1α, KIT, MET, HER2, EGFR, AKT, CDK4, BCR-ABL, BRAF, RAF1, and WT1;
- efficiently penetrates deep into the hypoxic regions of solid tumors where it can potently down-regulate HIF-1α expression;
- shows an average of approximately 20 times greater potency than first generation Hsp90 inhibitors, such as 17-AAG, across a broad range of cancer cell lines tested, achieving, in certain cases, over 100 times greater potency;
- is active against a broad range of *in vivo* models of cancer including breast, colon, gastric, lung, gastrointestinal stromal tumors, or GIST, melanoma, osteosarcoma, prostate, acute myeloid leukemia, or AML, chronic myeloid leukemia, Burkitt's lymphoma, diffuse large B-cell lymphoma, and multiple myeloma;
- is active in models that are non-responsive or resistant to first-generation inhibitors, such as 17-AAG;
- accumulates selectively in tumors, with a tumor half-life up to 20 times longer in duration than the half-life in plasma or normal tissues such as lung or liver;
- demonstrates enhanced activity in combination with several widely-used anti-cancer therapies including Taxol, Taxotere, Tarceva, and Avastin;

- has activity in models of cancer that have become resistant to approved tyrosine kinase inhibitors such as Gleevec, Sutent, Tarceva, and Sprycel —including the BCR-ABL T315I mutation in leukemia; the EGFR T790M mutation in lung cancer; and the KIT V654A or D820A mutations in gastrointestinal stromal tumors; and

- generated pronounced single-agent tumor responses in a canine clinical trial, including over 80% tumor shrinkage in dogs with certain rapidly progressing cancers.

Many of these results were presented at recent scientific meetings including the April 2009 AACR meeting, the November 2009 AACR-NCI-EORTC meeting, the December 2009 ASH meeting, the January 2010 IASLC Targeted Therapies for the Treatment of Lung Cancer meeting, the March 2010 NCI ESMO Targeted Anticancer Targets meeting and the April 2010 AACR meeting. We are actively continuing our collaborations with leading academic researchers. We use these preclinical results to help guide our clinical trial choices, for example, in designing trials that enrich for those patients with disease characteristics most likely to respond to treatment with STA-9090.

STA-9090 Ongoing Clinical Trials

STA-9090 is currently being evaluated in a total of thirteen clinical trials, of which seven are company-sponsored and six are investigator sponsored. We expect by the end of 2010, a total of fifteen trials will have been initiated for STA-9090.

Ongoing company-sponsored trials with STA-9090 are:

- two solid tumor Phase 1 trials, evaluating once-weekly and twice-weekly dosing schedules (the once-weekly trial is now closed for enrollment);
- two trials in hematologic cancers, evaluating once-weekly and twice-weekly dosing schedules;
- a Phase 2 trial in patients with non-small cell lung cancer, or NSCLC, initiated in December 2009;
- a Phase 2 trial in patients with GIST, initiated in December 2009; and
- a Phase 1/2 trial of STA-9090 in combination with docetaxel, initiated in July 2010.

Ongoing investigator-sponsored trials with STA-9090 are:

- a Phase 2 trial in colon cancer, initiated in Q2 2010 at Memorial Sloan Kettering Cancer Center in New York;
- a Phase 2 trial in gastric cancer, initiated in Q2 2010 at Massachusetts General Hospital in Boston;
- a Phase 1/2 trial in hepatic cancer, initiated in Q3 2010 at Massachusetts General Hospital in Boston;
- a Phase 2 trial in small-cell lung cancer, initiated in Q3 2010 at Dana-Farber Cancer Institute in Boston;
- a Phase 2 trial in ocular melanoma, initiated in Q3 2010 at Dana-Farber Cancer Institute in Boston; and
- a Phase 2 trial in pancreatic cancer, initiated in Q4 2010 at Vanderbilt Ingram Cancer Center in Nashville.

Additional investigator-sponsored trials with STA-9090 that are expected to initiate before year-end 2010 are:

- a Phase 2 trial in prostate cancer; and
- a Phase 2 trial in breast cancer.

Over 270 patients have been treated to date with STA-9090 across all trials. STA-9090 has been well-tolerated, without the serious hepatic toxicities seen with first generation Hsp90 inhibitors, and without the commonly occurring ocular/visual toxicities seen with several second generation Hsp90 inhibitors. Encouraging signs of clinical activity have been seen in patients with lung cancer, renal cancer, GIST, melanoma, colorectal cancer, and certain leukemia types. These cases of confirmed responses based on the Response Evaluation Criteria in Solid Tumors, or RECIST, and tumor shrinkage with long-duration disease stabilization have all been during the course of treatment with STA-9090 as a single agent, i.e., not in combination with any other anti-cancer therapy.

Interim results from our Phase 1 solid tumor trials were presented at ASCO in June 2010. The dose-limiting toxicities observed at 259 mg/m2 were fatigue/asthenia and diarrhea. The maximum tolerated dose, or MTD, was identified as 216mg/m2, and the recommended Phase 2 dose was selected as 200mg/m2. Enrollment in our solid-tumor Phase 1 with the twice-weekly schedule continues at the 144 mg/m2 dose level with an acceptable safety profile observed to date; the MTD has not yet been determined. Our Phase 1 trial in hematologic cancers with a twice-weekly schedule continues at a 90 mg/m2 dose level. In our Phase 1/2 trial with a once-weekly schedule in hematologic cancers, patients are being treated at 200mg/m2, the planned highest dose.

Over 100 patients have been treated in our Phase 2 solid-tumor trials to date. Across all of these trials, STA-9090 has been administered at an initial dose of 200mg/m2 once-weekly. Safety reviews have confirmed findings from the Phase 1 trials: that STA-9090 is well tolerated at this dose level, without the serious hepatic toxicities seen with first generation Hsp90 inhibitors and without the commonly occurring ocular/visual toxicities seen with several second generation Hsp90 inhibitors. Our Phase 1/2 trial of STA-9090 in combination with docetaxel was initiated in July 2010 and is evaluating the safety and activity in patients with cancers where

docetaxel is commonly used, including lung cancer, prostate cancer, breast cancer, and others. Six patients have been enrolled in this study, and the safety profile has been acceptable to date, with dose-escalation continuing.

Our Phase 2 NSCLC trial was initiated in December 2009 as a single-arm, single-agent trial with patients assigned to three cohorts based on the genetic profile of their cancer. These genetic profiles result in cancers shown to have differing responses to commonly used therapies in lung cancer, such as kinase inhibitors, and therefore may respond differently to inhibition of Hsp90, which regulates a number of these kinases. The cohorts are: (A) patients with EGFR mutations, i.e., those patients with a mutation in the EGFR gene known to confer sensitivity to EGFR inhibitors such as Tarceva and Iressa; (B) patients with kRAS mutations, i.e., those patients with a certain mutation in the kRAS gene; and (C) EGFR and kRAS wild-type genes, i.e., those patients whose cancers display neither of the prior two genetic mutations. Patients in these cohorts are believed to represent approximately 15%, 15%, and 70% of all NSCLC patients, respectively.

The Phase 2 NSCLC trial has a two-stage design with 14 patients planned for Stage 1 of each of the three cohorts, and pre-specified efficacy criteria for advancing into a 9-patient Stage 2 for each of the three cohorts. We have completed enrollment in Stage 1 of each of the three cohorts. In May we announced that these criteria for advancing from Stage 1 to Stage 2 were achieved for the cohort (C) above, the wild-type cohort. The criteria were not achieved for cohort (A) above, and we do not plan to continue to Stage 2 for cohort A. The results for cohort (B) are not yet available; those results are expected by end of this year.

In August we completed enrollment of Stage 2 for cohort (C) of this NSCLC trial. An initial review of the data shows that the pre-specified primary endpoint of the trial, the progression-free survival rate at 16 weeks, has been achieved. Additional review of these results is ongoing, and further details are expected to be presented at a medical meeting in the first half of 2011.

In September, we announced the expansion of the NSCLC trial from a total of up to 69 patients to a total of up to 146 patients. We decided to expand this trial based on encouraging activity observed in cohort (C) patients, following consultation with the key investigators on the trial. Patients in cohort (C) showed multiple instances of durable tumor shrinkage in response to treatment with STA-9090, together with an encouraging disease control rate. The protocol was amended to allow for two additional cohorts: cohort (D), which will enroll additional patients with the EGFR and kRAS wild-type genetic profile of cohort (C); and cohort (E) which will allow for combination treatment with STA-9090 and docetaxel. Clinical and preclinical results provide a strong rationale for combining taxanes and Hsp90 inhibitors, with the potential for synergistic activity.

In our Phase 2 GIST trial, enrollment in Stage 1 has been completed. The criteria for advancing to Stage 2 were achieved. We are currently evaluating the results from Stage 1 and are in discussions with key investigators from the trial on potential paths forward for STA-9090 in GIST.

Additional Hsp90 Inhibitors

We are currently developing a new series of Hsp90 inhibitor compounds that may be orally administered and may be more suitable for long-term treatment settings such as adjuvant and maintenance therapy. We have also characterized follow-on, small molecule, injectable Hsp90 inhibitors that provide additional options for future development. These compounds are in the lead optimization stage.

Elesclomol: Targeting Mitochondrial Energy Production in Cancer Cells

Elesclomol is a first-in-class, investigational drug candidate that triggers programmed cell death, or apoptosis, in cancer cells through a novel mechanism: targeting cancer cell energy metabolism.

Upon infusion, elesclomol binds copper in plasma, which causes a change in conformation that enables its uptake through membranes and into cells. Copper binds to elesclomol in an oxidative, or positively charged, state called Cu(II). Once inside mitochondria, an interaction with the electron transport chain, or ETC, reduces the copper from Cu(II) to Cu(I), resulting in a cascade of redox reactions, a rapid increase in oxidative stress, disruption of mitochondrial energy production, and the initiation of the mitochondrial apoptosis pathway.

Mitochondria generate energy for cells, but also can induce apoptosis under certain conditions, such as a high level of oxidative stress. By sensitizing mitochondria and reducing barriers to apoptosis, elesclomol may provide a means to overcome resistance to traditional chemotherapy or targeted therapy.

Cancer cell mitochondria may be selectively targeted by elesclomol because cancer cell mitochondria are structurally and functionally different from their normal counterparts, making them more susceptible to changes to mitochondrial metabolism.

This electrochemical means of targeting mitochondrial energy production represents a novel anti-cancer approach, distinct from chemotherapy or kinase inhibition, with promising application across multiple cancer types.

Interaction with LDH

Elesclomol kills cancer cells in which the mitochondrial ETC is the dominant source of energy production. This process requires oxygen and occurs under normal oxygen (normoxic) conditions. When cells are under low oxygen (hypoxic) conditions, energy production shifts to glycolysis in the cytoplasm, and the mitochondrial ETC is less active. Under these conditions, elesclomol loses anti-cancer activity.

Glycolysis under hypoxic conditions is reflected in an increase in the levels of the enzyme lactate dehydrogenase (LDH). This suggests that LDH may be a predictive biomarker for elesclomol activity. Evidence that elesclomol anti-cancer activity correlates with oxygen conditions and level of LDH includes:

- elesclomol shows potent activity, with IC50<10 nM in over 150 different cancer lines, against cells grown under normal oxygen conditions, but little to no activity against cells grown under hypoxic conditions;
- elesclomol shows little to no activity against cells treated with $CoCl_2$, a chemical mimetic of hypoxia;
- treating hypoxic cells with the LDH inhibitor oxamate, which induces a shift from glycolysis back to mitochondria-driven oxidative phosphorylation, restores elesclomol anti-cancer activity; and
- within the same cancer type, elesclomol is less active in cell lines with high levels of HIF1α (hypoxia inducible factor 1 alpha) and LDH, markers of hypoxic conditions; and more active in cells with low levels of HIF1α and LDH.

These preclinical findings on correlation of anti-cancer activity with level of LDH are consistent with results observed in clinical trials with elesclomol. In three double-blind, randomized, controlled clinical trials, elesclomol has shown clinical benefit only in those patients with low to normal baseline levels of LDH. These results are summarized in the table below (ULN = upper limit of normal).

	Elesclomol — Ph 3 melanoma Paclitaxel +/- elesclomol; 1:1 randomization*			**Elesclomol — Ph 2b NSCLC Carboplatin + paclitaxel +/- elesclomol; 86 patients; 1:1 randomization**		**Elesclomol — Ph 2b melanoma Paclitaxel +/- elesclomol; 78 patients; 2:1 randomization**	
		Hazard Ratio **			**Median PFS (mo.)**		**Median PFS (mo.)**
	N	**PFS**	**OS**	**N**	**CP+E vs. CP**	**N**	**P+E vs. P**
LDH < 0.8x ULN	174	0.66***	0.85	35	4.6 vs. 3.1	32	7.1 vs. 3.5
LDH > 1x ULN	153	1.16	1.96***	26	2.8 vs. 6.3	34	1.7 vs. 1.6

* Data as of March 9, 2010 (ASCO 2010 presentation) for all patients enrolled as of November 1, 2008 (N=422 out of 651 total enrolled): those patients who had the opportunity to receive four cycles of treatment prior to February 25, 2009 study termination.

** Hazard ratio is an estimate of comparative risk between the two treatment groups. A hazard ratio of 1 can be interpreted as no decrease in risk, while a hazard ratio of 0.66 can be thought of as a 34% reduction in risk of occurrence for the event as compared to the control group.

*** $p<0.05$

While baseline level of LDH has been commonly accepted as a prognostic marker in many cancers, it has not been commonly used as a predictive marker of drug activity. The predictive value of LDH for drug activity, however, has recently been analyzed for several other compounds that act by affecting metabolic pathways. Two examples, Avastin (bevacizumab) in metastatic melanoma and Torisel (temsirolimus) in renal cancer, are summarized in the table below.

	Avastin BEAM trial; melanoma; Carboplatin + Paclitaxel +/- Bevacizumab; 214 patients; 2:1 randomization [1]			Torisel Global ARCC Trial; renal cancer; Torisel vs. IFNa, 404 patients; 1:1 randomization [2]		
		Hazard Ratio			Hazard Ratio	
	N	PFS	OS	N	PFS	OS*
LDH < 1x ULN	128	0.89	1.25	140	N/A	0.90
LDH > 1x ULN	84	0.65	0.53**	264	N/A	0.56**

* Analysis for treatment interaction with LDH: p=0.016

** p<0.05

(1) "BEAM: A randomized Phase II study evaluating the activity of bevacizumab in combination with carboplatin plus paclitaxel in patients with previously untreated advanced melanoma"; SJ O'Day et al; ECCO/ESMO 2009

(2) "Serum lactate dehydrogenase (LDH) is a predictive biomarker for mTOR inhibition in metastatic renal cell carcinoma"; AJ Armstrong et al; ASCO 2010

In each of these cases, treatment shows greater benefit in patients with elevated baseline LDH and reduced benefit in patients with normal baseline LDH. These observations are consistent with the current understanding of the mechanisms of action of these drugs. Both of these agents target pathways that are induced under low oxygen (hypoxic) conditions: Avastin targets VEGF, and Torisel targets mTOR. Elesclomol, in contrast, shows preferential activity under normal oxygen (normoxic) conditions.

The consistency of the preclinical and clinical findings with elesclomol; the pattern observed across three blinded, randomized, controlled trials; and the emerging evidence that LDH may play an important predictive role for drugs acting through metabolic pathways, are encouraging evidence that elesclomol can provide clinical benefit in patients with low to normal levels of LDH, and that future clinical trials in these patient populations are warranted.

The recent results on the value of LDH as a predictive biomarker for elesclomol and the other drugs acting through metabolic pathways also suggest that similar analysis in other tumor types for these and related agents may be important for identifying patient groups that are most responsive to treatment with these agents.

Clinical Trials

In December 2009, results from our collaboration with researchers at Princess Margaret Hospital — University Health Network in Toronto, Ontario, were presented at the annual American Society for Hematology showing that elesclomol was highly active against AML cell lines and primary blast cells from AML patients. The FDA and Health Canada have both approved a Phase 1 clinical trial of elesclomol as a single agent in AML patients and, subject to Institutional Review Board, or IRB, approval at collaborating institutions, we expect to initiate this trial in the fourth quarter of 2010, with the first patient enrolled later this year or early next year.

On November 1, 2010, we announced that the Gynecologic Oncology Group, or GOG, would be undertaking a Phase 2 single-arm, open-label study of elesclomol in combination with paclitaxel in up to 55 ovarian cancer patients who have progressed after treatment with platinum-based therapy, and with baseline levels of lactate dehydrogenase (LDH) < 0.8 xULN. The National Cancer Institute, or NCI, will provide financial support of up to approximately $300,000 for the trial through its Cancer Therapy Evaluation Program, or CTEP. Based on the synergistic anti-tumor activity seen in a number of preclinical models as well as encouraging activity seen in an ovarian cancer patient in a Phase 1 study of elesclomol, we believe that the combination of elesclomol and paclitaxel holds promise in ovarian cancer patients.

Clinical trials for elesclomol in additional solid tumor cancers, including non-small cell lung cancer and prostate cancer, are currently under discussion with investigators.

Further information on new clinical trials with elesclomol will be presented as the trials initiate.

GSK Elesclomol Alliance

In October 2007, as amended in June 2008, we entered into the GSK Agreement for the joint development and commercialization of elesclomol under which we received nonrefundable payments, including an $80 million upfront license fee and $50 million in operational milestone payments. On June 10, 2009, following the suspension of the SYMMETRY trial, we received written notice from GSK of their intent to terminate the GSK Agreement. The termination of the GSK Agreement was effective on

September 10, 2009. In accordance with the termination provisions of the GSK Agreement, all rights to the elesclomol program have been returned to us as of the effective date of termination. Should we determine to continue the elesclomol program, we may do so either alone or with another partner. Under the termination provisions in the GSK Agreement, we may be required to pay GSK a low single-digit royalty on future sales of elesclomol.

STA-9584 (Vascular Disrupting Agent)

STA-9584 is a novel, injectable, small molecule compound that appears to disrupt the blood vessels that supply tumors with oxygen and essential nutrients. In animal models, STA-9584 has been shown to target both new and established tumor blood vessels, in contrast to the mechanism of action of angiogenesis inhibitors such as Avastin, which only prevent the formation of new tumor vasculature. STA-9584 has shown strong anti-tumor activity in a broad range of preclinical cancer models, including prostate, lung, breast, melanoma, and lymphoma. These models have shown that STA-9584 may kill tumor cells directly, in addition to disrupting established tumor blood vessels. This program is currently in preclinical development.

Our Inflammatory Disease Programs

We have two preclinical-stage programs focusing on treatments for inflammatory diseases. Both of our inflammatory disease programs focus on oral, disease-modifying drug candidates that act through novel mechanisms and could potentially target multiple indications.

IL-12/23 Inhibitors

We have identified several small molecule IL-12/23 inhibitors with significantly improved pharmaceutical properties over our first generation oral inhibitor, apilimod. We believe that these compounds represent a promising opportunity to develop next generation drug candidates that could be administered orally and potentially address a wider range of serious inflammatory diseases such as rheumatoid arthritis, or RA, Crohn's disease, psoriasis and multiple sclerosis.

Based on our review of the results of a Phase 2a clinical trial of apilimod in patients with RA, we do not expect to continue development of apilimod in this indication, with this formulation and route of administration. We believe the pharmaceutical properties of this first generation compound and formulation are not optimized for systemic, oral administration and are currently exploring the possibility of using apilimod in alternative formulations, which may deliver locally higher concentrations.

CRACM Ion Channel Inhibitors

We have developed novel, small molecule inhibitors of CRACM ion channels expressed on immune cells. Our CRACM ion channel inhibitors have shown strong anti-inflammatory activity in preclinical studies both *in vitro* and *in vivo*, inhibiting T cell and mast cell activity, including cytokine release, degranulation, and immune cell proliferation. Potential applications include a wide range of inflammatory diseases and disorders for which modulating T cell and mast cell function has been shown to be critical, including RA, asthma, chronic obstructive pulmonary disease, or COPD, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. In December 2008, we entered into a global partnership with Roche to further develop our CRACM inhibitors. In February 2010, we entered into an amendment of the underlying agreement with Roche.

Roche CRACM Inhibitor Alliance

In December 2008, as amended in February 2010, we entered into the Roche Agreement to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The goal of this alliance is to develop a novel category of oral, disease-modifying agents for the treatment of RA, asthma, COPD, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. Under the terms of the Roche Agreement, Roche funds research and development to be conducted by us, which includes discovery and certain early development activities for our novel CRACM inhibitors. Roche will receive worldwide rights to develop and commercialize certain products identified prior to the end of the research period. For these licensed products, Roche is responsible for development and commercialization, while we retain certain co-development and co-promotion rights.

The financial terms of the Roche Agreement include a $16 million non-refundable upfront license fee that we received in January 2009, and reimbursement by Roche of all of our research, preclinical development, and clinical development costs, based upon the research and development plans agreed to by the parties. These costs include committed research support over the initial two year research period. In October 2010, Roche notified us of its election to not extend the research term, which will conclude on December 31, 2010. As of September 30, 2010, we have received approximately $19.1 million in research and development support under the Roche Agreement.

In connection with the conclusion of the funded research phase, we will be making the appropriate adjustments in our operations.

We are eligible to receive milestone payments and royalties for products developed as a result of this collaboration and licensed by Roche. Development milestones across multiple indications of up to $245 million could be earned for the first product, and up to half of this amount could be earned for each of the second and third products. Commercialization milestones of up to $170 million could be earned for each of three products. We will receive tiered royalties on sales of all approved, marketed products. Roche may terminate the agreement on a licensed compound-by-licensed compound basis upon providing advance written notice, but may not do so with respect to all licensed compounds until after a specified date.

Financial Operations Overview

Revenue

We have not yet generated any product revenue and do not expect to generate any product revenue in the foreseeable future, if at all. Our revenues have been generated primarily through partnership agreements with GSK and Roche. The terms of these agreements include payment to us of upfront license fees, milestone payments, research and development cost sharing and royalties. We will seek to generate revenue from product sales and from future collaborative or strategic relationships. Upfront license payments and milestones are recognized ratably as collaboration revenue using the time-based model over the estimated performance period and any changes in the estimated performance period could result in substantial changes to the period over which these revenues are recognized. In the future, we expect any revenue we generate will fluctuate from quarter-to-quarter as a result of the timing and amount of payments received and expenses incurred under the Roche Agreement and from future collaborations or strategic relationships, and the amount and timing of payments we receive upon the sale of our drug candidates, to the extent any are successfully commercialized.

Research and Development

Research and development expense consists of costs incurred in connection with developing and advancing our drug discovery technology and identifying and developing our drug candidates. We charge all research and development expenses to operations as incurred.

Our research and development expense consists of:

- internal costs associated with research, preclinical and clinical activities;
- payments to third party contract research organizations, investigative sites and consultants in connection with our preclinical and clinical development programs;
- costs associated with drug formulation and supply of drugs for clinical trials;
- personnel related expenses, including salaries, stock-based compensation, benefits and travel; and
- overhead expenses, including rent and maintenance of our facilities, and laboratory and other supplies.

We do not know if we will be successful in developing our drug candidates. We believe that accurately projecting total program-specific expenses through commercialization is not possible at this time. The timing and amount of these expenses will depend upon the costs associated with potential future clinical trials of our drug candidates, and the related expansion of our research and development organization, regulatory requirements, advancement of our preclinical programs and product manufacturing costs, many of which cannot be determined with accuracy at this time based on our stage of development. This is due to the numerous risks and uncertainties associated with the duration and cost of clinical trials, which vary significantly over the life of a project as a result of unanticipated events arising during clinical development, including with respect to:

- the number of clinical sites included in the trial;
- the length of time required to enroll suitable subjects;
- the number of subjects that ultimately participate in the trials; and
- the efficacy and safety results of our clinical trials and the number of additional required clinical trials.

Our expenditures are subject to additional uncertainties, including the terms and timing of regulatory approvals and the expense of filing, prosecuting, defending or enforcing any patent claims or other intellectual property rights. In addition, we may obtain unexpected or unfavorable results from our clinical trials. We may elect to discontinue, delay or modify clinical trials of some drug candidates or focus on others. A change in the outcome of any of the foregoing variables in the development of a drug candidate could mean a significant change in the costs and timing associated with the development of that drug candidate. For example, if the FDA or other regulatory authority were to require us to conduct clinical trials beyond those that we currently anticipate, or if we experience significant delays in any of our clinical trials, we would be required to expend significant additional financial resources and time on the completion of clinical development. Additionally, future commercial and regulatory factors beyond our control will evolve and therefore impact our clinical development programs and plans over time.

Beyond our current lead drug candidates, we anticipate that we will select drug candidates and research projects for further development on an ongoing basis in response to their preclinical and clinical success, as well as commercial potential.

General and Administrative

General and administrative expense consists primarily of salaries and related expenses for personnel in executive, finance, business and commercial development, investor and medical community relations, human resources and administrative functions. Other costs include stock-based compensation costs, directors' and officers' liability insurance premiums, legal costs of pursuing patent protection of our intellectual property, fees for general legal, accounting, public-company requirements and compliance, and other professional services, as well as overhead-related costs not otherwise included in research and development.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported periods. We are required to make estimates and judgments with respect to research contract accruals, the recoverability of long-lived assets, measurement of stock-based compensation and the periods of performance under collaborative research and development agreements. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources and the reported amounts of revenues and expenses. Actual results may differ from these estimates under different assumptions or conditions.

There have been no significant changes to our critical accounting policies in 2010. You should read the following discussion of our reported financial results in conjunction with the critical accounting policies disclosed in our Annual Report on Form 10-K for the year ended December 31, 2009, as filed with the Securities and Exchange Commission on March 11, 2010.

Consolidated Results of Operations

Three Months Ended September 30, 2010 Compared with Three Months Ended September 30, 2009

Collaboration Revenue

	Three Months Ended September 30,		2010 to 2009 Change	
	2010	2009	$	%
	(dollars in millions)			
License and milestone revenue—Roche	$ 1.2	$ 1.2	—	—%
License and milestone revenue—GSK	—	116.0	(116.0)	(100)%
	1.2	117.2	(116.0)	(99)%
Cost sharing reimbursements, net—Roche	2.2	3.2	(1.0)	(31)%
Cost sharing reimbursements, net—GSK	—	10.0	(10.0)	(100)%
	2.2	13.2	(11.0)	(83)%
Total collaboration revenue	$ 3.4	$ 130.4	$ (127.0)	(97)%

In the three months ended September 30, 2010, license and milestone revenue decreased by $116.0 million over the three months ended September 30, 2009 due to the termination of the GSK Agreement that was effective in September 2009. In the third quarter of 2009, upon the effectiveness of the termination of the GSK Agreement, we recognized approximately $114.6 million of remaining deferred revenue from upfront payments and milestones received under the GSK Agreement, all of which were recorded as license and milestone revenue as we have no further obligation for deliverables under the GSK Agreement.

In the three months ended September 30, 2010, cost sharing reimbursements decreased by $11.0 million over the three months ended September 30, 2009, principally as a result of the suspension of the SYMMETRY trial in February 2009 and GSK's termination of the GSK Agreement. The requirement to pay the cumulative GSK cost sharing reimbursements did not survive termination of the GSK Agreement and in the third quarter of 2009, upon the effectiveness of the termination of the GSK Agreement, we reversed approximately $10 million of cost sharing reimbursement liabilities as collaboration revenue. Also, the $1.0 million decrease in cost sharing reimbursements from Roche reflects the realignment of our resources to focus on advancing the research program to identify the second licensed compound thereby shifting preclinical and clinical development of the first licensed compound to Roche. (See Notes 2, 9 and 10 in the accompanying condensed consolidated financial statements.)

Research and Development Expense

	Three Months Ended September 30,		2010 to 2009 Change	
	2010	2009	$	%
	(dollars in millions)			
Clinical-stage drug candidates				
STA-9090	$ 7.2	$ 3.8	$ 3.4	89%
Elesclomol	0.9	0.8	0.1	13%
Apilimod	—	0.2	(0.2)	(100)%
Total clinical-stage drug candidates	8.1	4.8	3.3	69%
CRACM	1.7	3.1	(1.4)	(45)%
Other early stage programs	1.2	1.2	—	—%
Total research and development	$ 11.0	$ 9.1	$ 1.9	21%

In the three months ended September 30, 2010, costs incurred under our STA-9090 program increased by $3.4 million over the three months ended September 30, 2009, including increases of $0.9 million for personnel costs, related research supplies, operational overhead and stock-based compensation, and $2.5 million for external costs. These increases were principally due to the advancement of clinical development, including thirteen ongoing clinical trials and supporting drug supply, as well as efforts in support of additional clinical trials planned to be initiated by the end of 2010.

In the three months ended September 30, 2010, costs incurred under our elesclomol program increased by $0.1 million over the three months ended September 30, 2009, resulting from a decrease of $0.4 million for personnel costs, related research supplies, operational overhead and stock-based compensation, offset by an increase of $0.5 million for external costs.

In the three months ended September 30, 2010, costs incurred under our apilimod program decreased by $0.2 million over the three months ended September 30, 2009, including decreases of $0.1 million for each of personnel costs, related research supplies, operational overhead and stock-based compensation, as well as for external costs.

In the three months ended September 30, 2010, costs incurred under our CRACM program decreased by $1.4 million over the three months ended September 30, 2009, including decreases of $1.1 million for personnel costs, related research supplies, operational overhead and stock-based compensation, and $0.3 million for external costs. The decrease in internal-related costs reflects the reallocation of our resources to focus on advancing the research program, while shifting preclinical and clinical development to Roche. In October 2010, Roche notified us of its election to not extend the research term, which will conclude on December 31, 2010. Accordingly, we expect that our investment in CRACM research will decrease.

In addition, in the three months ended September 30, 2010, costs incurred under our other early-stage programs remained unchanged as compared to the three months ended September 30, 2009.

General and Administrative Expense

	Three Months Ended September 30,		2010 to 2009 Change	
	2010	2009	$	%
	(dollars in millions)			
General and administrative	$ 2.6	$ 3.1	$ (0.5)	(16)%

The decrease in general and administrative expense principally resulted from decreases of $0.2 million for personnel costs, related overhead and stock-based compensation and $0.3 million in external professional fees, including intellectual property and general legal fees, public-company reporting and compliance costs, director and officer insurance premiums, investor and medical-community relations, commercial development and corporate taxes.

Nine Months Ended September 30, 2010 Compared with Nine Months Ended September 30, 2009

Collaboration Revenue

	Nine Months Ended September 30,		2010 to 2009 Change	
	2010	2009	$	%
	(dollars in millions)			
License and milestone revenue—Roche	$ 3.4	$ 3.4	—	—%
License and milestone revenue—GSK	—	121.1	(121.1)	(100)%
	3.4	124.5	(121.1)	(97)%
Cost sharing reimbursements, net—Roche	7.3	8.3	(1.0)	(12)%
Cost sharing reimbursements, net—GSK	—	6.7	(6.7)	(100)%
	7.3	15.0	(7.7)	(51)%
Total collaboration revenue	$ 10.7	$ 139.5	$ (128.8)	(92)%

In the nine months ended September 30, 2010, license and milestone revenue decreased by $121.1 million over the nine months ended September 30, 2009 due to the termination of the GSK Agreement that was effective in September 2009. In the third quarter of 2009, upon the effectiveness of the termination of the GSK Agreement, we recognized approximately $114.6 million of remaining deferred revenue from upfront payments and milestones received under the GSK Agreement, all of which were recorded as license and milestone revenue as we have no further obligation for deliverables under the GSK Agreement.

In the nine months ended September 30, 2010, cost sharing reimbursements decreased by $7.7 million over the nine months ended September 30, 2009, principally as a result of the suspension of the SYMMETRY trial in February 2009 and GSK's termination of the GSK Agreement. Prior to the termination of the GSK Agreement, $3.3 million in cost sharing reimbursements due to GSK were recognized in the first half of 2009. The requirement to pay the cumulative GSK cost sharing reimbursements did not survive termination of the GSK Agreement and in the third quarter of 2009, upon the effectiveness of the termination of the GSK Agreement, we reversed approximately $10 million of cost sharing reimbursement liabilities as collaboration revenue. In addition, the $1.0 million decrease in cost sharing reimbursements from Roche reflects the realignment of our resources to focus on advancing the research program to identify the second licensed compound thereby shifting preclinical and clinical development of the first licensed compound to Roche. (See Notes 2, 9 and 10 in the accompanying condensed consolidated financial statements.)

Research and Development Expense

	Nine Months Ended September 30,		2010 to 2009 Change	
	2010	2009	$	%
	(dollars in millions)			
Clinical-stage drug candidates				
STA-9090	$ 19.6	$ 9.6	$ 10.0	104%
Elesclomol	2.1	19.6	(17.5)	(89)%
Apilimod	0.2	0.5	(0.3)	(60)%
Total clinical-stage drug candidates	21.9	29.7	(7.8)	(26)%
CRACM	6.0	7.4	(1.4)	(19)%
Other early stage programs	3.0	4.7	(1.7)	(36)%
Total research and development	$ 30.9	$ 41.8	$ (10.9)	(26)%

In the nine months ended September 30, 2010, costs incurred under our STA-9090 program increased by $10.0 million over the nine months ended September 30, 2009, including increases of $5.4 million for personnel costs, related research supplies, operational overhead and stock-based compensation, and $4.6 million for external costs. These increases were principally due to the advancement of clinical development, including thirteen ongoing clinical trials and supporting drug supply, as well as efforts in support of additional clinical trials planned to be initiated by the end of 2010.

In the nine months ended September 30, 2010, costs incurred under our elesclomol program decreased by $17.5 million over the nine months ended September 30, 2009, including decreases of $7.4 million for personnel costs, related research supplies,

operational overhead and stock-based compensation, and $10.1 million for external costs. These decreases were principally due to non-recurring costs incurred in 2009 resulting from the suspension of our elesclomol program and subsequent restructuring in the first quarter of 2009, offset in part by efforts in support of the restart of clinical development, including the planned initiation of two clinical trials by the end of 2010 or early 2011.

In the nine months ended September 30, 2010, costs incurred under our apilimod program decreased by $0.3 million over the nine months ended September 30, 2009, including decreases of $0.1 million for personnel costs, related research supplies, operational overhead and stock-based compensation, and $0.2 million for external costs.

In the nine months ended September 30, 2010, costs incurred under our CRACM program decreased by $1.4 million over the nine months ended September 30, 2009, including decreases of $0.7 million for personnel costs, related research supplies, operational overhead and stock-based compensation, and $0.7 million for external costs. These decreases reflect the reallocation of our resources to focus on advancing the research program, while shifting preclinical and clinical development to Roche. In October 2010, Roche notified us of its election to not extend the research term, which will conclude on December 31, 2010. Accordingly, we expect that our investment in CRACM research will decrease.

In addition, in the nine months ended September 30, 2010, costs incurred under our other early-stage programs decreased by $1.7 million over the nine months ended September 30, 2009, due to decreases of $1.2 million for personnel costs, related research supplies, operational overhead and stock-based compensation, and $0.5 million for external costs.

General and Administrative Expense

	Nine Months Ended September 30,		2010 to 2009 Change	
	2010	2009	$	%
	(dollars in millions)			
General and administrative	$ 8.4	$ 10.2	$ (1.8)	(18)%

The decrease in general and administrative expense principally resulted from decreases of $0.6 million for personnel costs and related overhead in connection with decreased headcount and stock-based compensation due in part to the workforce reduction in the first quarter of 2009, and $1.2 million in external professional fees, including intellectual property and general legal fees, public-company reporting and compliance costs, director and officer insurance premiums, investor and medical-community relations, commercial development and corporate taxes.

Liquidity and Capital Resources

Cash Flows

The following table provides information regarding our cash position, cash flows and capital expenditures for the nine months ended September 30, 2010 and 2009:

	Nine Months Ended September 30,	
	2010	2009
	(dollars in millions)	
Cash, cash equivalents and marketable securities	$ 54.1	$ 51.7
Working capital	39.9	35.2
Cash flows (used in) provided by:		
Operating activities	(30.0)	(19.5)
Investing activities	(19.3)	4.0
Financing activities	40.1	(1.7)
Capital expenditures (included in investing activities)	(0.1)	(0.5)

In the nine months ended September 30, 2010, our operating activities used cash of $30.0 million, including the receipt of $7.1 million in partnership payments by Roche offset by $37.1 million in net cash used in operations. In the nine months ended September 30, 2009, our operating activities used cash of $19.5 million, including the receipt of $34.7 million in partnership payments by GSK and Roche offset by $54.2 million in net cash used in operations. The use of cash in these periods principally resulted from our losses from operations, as adjusted for non-cash charges for depreciation and stock-based compensation, and changes in our working capital accounts.

Our investing activities used cash of $19.3 million in the nine months ended September 30, 2010, including purchases of marketable securities in the amount of $19.2 million and purchases of property and equipment in the amount of $0.1 million. Our investing activities provided cash of $4.0 million in the nine months ended September 30, 2009, including sales and maturities of marketable securities of $43.9 million, offset by purchases of marketable securities in the amount of $39.3 million and purchases of property and equipment in the amount of $0.5 million.

Our financing activities provided cash of $40.1 million in the nine months ended September 30, 2010. In January 2010, we raised $26.7 million in net offering proceeds from the sale of 6,388,889 shares of our common stock at $4.50 per share in an underwritten public offering. In September 2010, we executed a term loan raising $15.0 million in gross proceeds. We repaid $1.7 million and $1.8 million in capital equipment leases in the nine months ended September 30, 2010 and 2009, respectively.

Contractual Obligations and Commitments

There have been no material changes to the contractual obligations and commitments included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, except for the $15.0 million term loan we entered into on September 30, 2010 as described in the section below titled "Term Loan with General Electric Capital Corporation (GECC)."

Funding Requirements

We expect to continue to incur significant operating expenses in the foreseeable future as we:

- complete the ongoing and contemplated Phase 1, Phase 1/2 and Phase 2 clinical trials of STA-9090 in solid tumors and hematologic cancers and initiate additional clinical trials of STA-9090, if supported by the preclinical data or earlier clinical trial results;
- complete preclinical development of an additional Hsp90 inhibitor and initiate clinical trials of this compound, if supported by the preclinical data;
- complete the planned phase 1 and phase 2 clinical trials of elesclomol in AML and Ovarian cancers, and initiate additional clinical trials of elesclomol;
- complete preclinical development of STA-9584 and initiate clinical trials, if supported by positive preclinical data;
- advance our CRACM inhibitor program into clinical trials, if supported by positive preclinical data, to the extent that these activities are not funded by Roche under the Roche Agreement;
- discover, develop, and seek regulatory approval for backups of our current drug candidates and other new drug candidates;
- identify additional compounds or drug candidates and acquire rights from third parties to those compounds or drug candidates through licenses, acquisitions or other means; and
- commercialize any approved drug candidates.

Our funding requirements will depend on a number of factors, including:

- the progress and results of our ongoing Phase 1, Phase 1/2 and Phase 2 clinical trials of STA-9090, any additional Phase 1 or Phase 2 clinical trials of STA-9090 we may initiate and any later stage clinical trials we may initiate in the future based on the results of the earlier stage clinical trials;
- the progress and results of additional clinical trials of elesclomol that we expect to initiate;
- the results of our preclinical studies of STA-9584, and our decision to initiate clinical trials, if supported by the preclinical and other test results;
- our ability to fulfill our obligations under and otherwise maintain the Roche Agreement and for Roche to satisfy its obligations under the Roche Agreement, including payment of funding obligations and milestone payments;

- the costs, timing, and outcome of regulatory review of our drug candidates;
- the scope, progress, results, and cost of preclinical development, clinical trials, and regulatory review of any new drug candidates we may discover or acquire;
- the costs of preparing, filing, and prosecuting patent applications and maintaining, enforcing, and defending intellectual property-related claims;
- our ability to establish additional strategic collaborations and licensing or other arrangements on terms favorable to us;
- the costs to satisfy our obligations under potential future collaborations; and
- the timing, receipt, and amount of sales or royalties, if any, from elesclomol, apilimod, STA-9090, STA-9584, our CRACM inhibitors and our other potential products.

Term Loan with General Electric Capital Corporation (GECC)

On September 30, 2010, we entered into the $15 million GECC Term Loan. Interest on the borrowings under the GECC Term Loan accrues at an annual rate of 9.75%. We will make interest-only payments through June 2011, followed by 27 equal monthly payments of principal plus accrued interest on the outstanding balance. In addition to the interest payable under the GECC Term Loan, we paid origination fees in the amount of $150,000 and are obligated to pay an exit fee of $450,000 at the time of the final payment of the outstanding principal. These amounts are being amortized and accreted, respectively, to interest expense over the term of the GECC Term Loan. We also paid approximately $160,000 of legal fees and expenses in connection with the GECC Term Loan. These expenses have been deferred and, together with the $150,000 origination fees, are included in other assets, and will be expensed over the term of the GECC Term Loan. No warrants were issued in connection with the GECC Term Loan. We may prepay the full amount of the GECC Term Loan, subject to prepayment premiums under certain circumstances.

The GECC Term Loan is secured by substantially all of our assets, except our intellectual property. We have granted GECC a springing security interest in our intellectual property in the event we are not in compliance with certain cash burn covenants, as defined. The GECC Term Loan contains restrictive covenants, including the requirement for us to receive prior written consent of GECC to enter into loans, other than up to $4.0 million of equipment financing, restrictions on acquisitions, and customary default provisions that include material adverse events. In addition, at the time of closing the GECC Term Loan, we were required to repay approximately $787,000 of remaining principal outstanding under our existing equipment leases with GECC.

Future principal payments under the GECC Term Loan as of September 30, 2010 are approximately as follows:

Year Ending December 31,		
2010	$	—
2011		3,333
2012		6,667
2013		5,000
	$	15,000

Equity Line of Credit with Azimuth

On October 4, 2010, we entered into a common stock purchase agreement, or the Purchase Agreement, with Azimuth Opportunity Ltd., or Azimuth, pursuant to which we obtained an equity line of credit facility, which we refer to as the Facility, under which we may sell, in our sole discretion, and Azimuth is committed to purchase, subject to the terms and conditions set forth in the Purchase Agreement, up to $35 million of our common stock, or 8,106,329 shares of common stock, whichever is fewer, over the 18-month term of the agreement. Each draw down is limited in size, unless otherwise mutually agreed by the parties, to the lesser of (i) certain agreed-upon draw down amounts (the largest of which is $4.25 million), based on the threshold price selected by us for the draw down, and (ii) 2.5% of our market capitalization at the time of such draw down. Azimuth is not required to purchase shares of our common stock if the threshold price is less than $2.00 per share. The per share price of the shares sold in each draw down will be determined based on the daily volume weighted average price of our common stock on each trading day during the draw down period, less a discount ranging from 4.875% to 6%. The Purchase Agreement also provides that, from time to time and in our sole discretion, we may grant Azimuth the right to exercise one or more options to purchase additional shares of common stock during each draw down pricing period for the amount of shares based upon the maximum option dollar amount and the option threshold price specified by us. There were no transaction fees paid or warrants issued by us to Azimuth in connection with execution of the Purchase Agreement. Shares under the Facility, if issued, will be registered under our registration statement on Form S-3 declared effective by the Securities and Exchange Commission on August 28, 2008. Upon each sale of common stock to Azimuth, we will pay to Reedland Capital Partners a placement fee equal to 1.0% of the aggregate dollar amount received by us from such sale. To date, no shares have been sold to Azimuth under the Facility. The Purchase Agreement may be terminated by either party at any time.

Liquidity

As of September 30, 2010, we had $54.1 million in cash, cash equivalents and marketable securities, an increase of $9.9 million from $44.2 million as of December 31, 2009. This increase principally reflects $26.7 million in net proceeds from the public offering of our common stock that we completed in January 2010, $7.1 million in payments from Roche for research and development support, and $15.0 million in gross proceeds from a three-year term loan that we completed in September 2010, offset by cash used in operations as discussed under “Cash Flows” above.

We do not anticipate that we will generate product revenue in the foreseeable future, if at all. We expect our continuing operations to use cash over the next several years and such cash use may increase significantly from year to year. While we are engaged in multiple preliminary partnership discussions for each of our currently unpartnered programs—STA-9090, elesclomol, STA-9584, and apilimod—which could result in one or more new partnership agreements, that may include upfront payments and cost-sharing provisions, there is no guarantee we will be successful in entering into any such partnership agreements on commercially reasonable terms, if at all, or that we will receive any other revenue through these partnership efforts in the future. We expect to end 2010 with approximately $43 million to $45 million in cash, cash equivalents and marketable securities. Based on our current operating plan, we expect our cash resources, together with remaining research and development reimbursements under our collaboration with Roche, will be sufficient to fund operations into 2012. This estimate assumes no additional funds from new partnership agreements, cost- or risk-sharing agreements, equity financing events, or use of our $35 million equity line of credit facility. Certain new clinical programs contemplated for 2011 would be conducted subject to the availability of additional financial resources.

We may require significant additional funds earlier than we currently expect in order to conduct additional clinical trials and conduct additional preclinical and discovery activities. Because of the numerous risks and uncertainties associated with the development and commercialization of our drug candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials.

To the extent our capital resources are insufficient to meet our future capital requirements, we will need to finance our future cash needs through public or private equity offerings, collaboration agreements, debt financings or licensing arrangements. However, the credit markets and the financial services industry have recently been experiencing a period of turmoil and uncertainty that have made equity and debt financing more difficult to obtain. Additional funding may not be available to us on acceptable terms or at all. In addition, the terms of any financing may adversely affect the holdings or the rights of our stockholders. For example, if we raise additional funds by issuing equity securities or by selling convertible debt securities, further dilution to our existing stockholders may result. If we raise funds through collaboration agreements or licensing arrangements, we may be required to relinquish rights to our technologies or drug candidates, or grant licenses on terms that are not favorable to us.

If adequate funds are not available, we may be required to terminate, significantly modify or delay our research and development programs, reduce our planned commercialization efforts, or obtain funds through collaborators that may require us to relinquish rights to our technologies or drug candidates that we might otherwise seek to develop or commercialize independently. Conversely, we may elect to raise additional funds even before we need them if the conditions for raising capital are favorable, including through offerings of securities pursuant to our shelf registration statement on Form S-3, under which we currently have up to

$121.2 million in securities available for issuance, including up to $35.0 million in shares of common stock that we may offer and sell under the ELOC with Azimuth.

Recent Accounting Pronouncements

In April 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2010-17, "Milestone Method of Revenue Recognition—a consensus of the FASB Emerging Issues Task Force" (ASU 2010-17). This ASU provides guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research and development transactions. ASU 2010-17 is effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. Early adoption is permitted. We are currently evaluating the impact of adopting this pronouncement.

Certain Factors That May Affect Future Results of Operations

The Securities and Exchange Commission, or SEC, encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This Quarterly Report on Form 10-Q contains such "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995.

Words such as "may," "anticipate," "estimate," "expects," "projects," "intends," "plans," "believes" and words and terms of similar substance used in connection with any discussion of future operating or financial performance, identify forward-looking statements. All forward-looking statements are management's present expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those described in the forward-looking statements. These risks include, but are not limited to those set forth under the heading "Risk Factors" contained in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2009 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 that we have filed with the SEC.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this Quarterly Report on Form 10-Q might not occur. Stockholders are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this Quarterly Report on Form 10-Q. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to Synta or to any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Sensitivity. As of September 30, 2010, we had cash, cash equivalents and marketable securities of $54.1 million consisting of cash deposited in a highly rated financial institution in the United States and in a short-term U.S. Treasury money market fund, as well as high-grade commercial paper and government-agency securities that are guaranteed by the U.S. government. The primary objective of our investment activities is to preserve our capital for the purpose of funding operations and we do not enter into investments for trading or speculative purposes. We believe that we did not have material exposure to high-risk investments such as mortgage-backed securities, auction rate securities or other special investment vehicles within our money-market fund investments. We believe that we do not have any material exposure to changes in fair value as a result of changes in interest rates. Declines in interest rates, however, would reduce future investment income. During the nine months ended September 30, 2010, our investment income was negligible.

Capital Market Risk. We currently have no product revenues and depend on funds raised through other sources. One possible source of funding is through further equity offerings. Our ability to raise funds in this manner depends upon capital market forces affecting our stock price.

Item 4. Controls and Procedures.

(a) *Evaluation of Disclosure Controls and Procedures*. Our principal executive officer and principal financial officer evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

(b) *Changes in Internal Controls*. There were no changes in our internal control over financial reporting, identified in connection with the evaluation of such internal control that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

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

Item 1A. Risk Factors.

There have been no material changes to the risk factors included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, as supplemented under the heading "Risk Factors" in Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2010.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. (Removed and Reserved).

Item 5. Other Information.

None.

Item 6. Exhibits.

(a) *Exhibits*

10.1.1	Loan and Security Agreement, dated as of September 30, 2010, by and among the Registrant, Synta Securities Corp., General Electric Capital Corporation, and MidCap Funding III, LLC (incorporated by reference to Exhibit 10.1.1 to the Registrant's Current Report on Form 8-K filed October 5, 2010 (File No. 001-33277)).
10.1.2	Promissory Note issued by the Registrant to General Electric Capital Corporation (incorporated by reference to Exhibit 10.1.2 to the Registrant's Current Report on Form 8-K filed October 5, 2010 (File No. 001-33277)).
10.1.3	Promissory Note issued by the Registrant to MidCap Funding III, LLC (incorporated by reference to Exhibit 10.1.3 to the Registrant's Current Report on Form 8-K filed October 5, 2010 (File No. 001-33277)).
10.1.4	Guaranty, dated as of September 30, 2010, by and among Synta Securities Corp. and General Electric Capital Corporation (incorporated by reference to Exhibit 10.1.4 to the Registrant's Current Report on Form 8-K filed October 5, 2010 (File No. 001-33277)).
10.1.5	Pledge Agreement, dated as of September 30, 2010, by and among the Registrant, Synta Securities Corp., and General Electric Capital Corporation (incorporated by reference to Exhibit 10.1.5 to the Registrant's Current Report on Form 8-K filed October 5, 2010 (File No. 001-33277)).
10.2	Common Stock Purchase Agreement, dated October 4, 2010, by and between the Registrant and Azimuth Opportunity Ltd. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed October 5, 2010 (File No. 001-33277)).
31.1	Certification of principal executive officer under Section 302(a) of the Sarbanes-Oxley Act of 2002.
31.2	Certification of principal financial officer under Section 302(a) of the Sarbanes-Oxley Act of 2002.
32.1	Certifications of the principal executive officer and the principal financial officer under Section 906 of the Sarbanes-Oxley Act of 2002.

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.

SYNTA PHARMACEUTICALS CORP.

Date: November 4, 2010

By: /s/ SAFI R. BAHCALL, PH.D.
Safi R. Bahcall, Ph.D.
President and Chief Executive Officer
(principal executive officer)

Date: November 4, 2010

By: /s/ KEITH S. EHRLICH
Keith S. Ehrlich
Vice President Finance and Administration,
Chief Financial Officer
(principal accounting and financial officer)

Exhibit 31.1

CERTIFICATIONS UNDER SECTION 302

I, Safi R. Bahcall, Ph.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Synta Pharmaceuticals Corp.;

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(s) 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: November 4, 2010

/s/ SAFI R. BAHCALL, PH.D.
Safi R. Bahcall, Ph.D.
President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

CERTIFICATIONS UNDER SECTION 302

I, Keith S. Ehrlich, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Synta Pharmaceuticals Corp.;

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(s) 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: November 4, 2010

/s/ KEITH S. EHRLICH
Keith S. Ehrlich
Vice President, Finance and Administration,
Chief Financial Officer
(principal accounting and financial officer)

Exhibit 32.1

CERTIFICATIONS UNDER SECTION 906

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Synta Pharmaceuticals Corp., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report on Form 10-Q for the period ended September 30, 2010 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 4, 2010

/s/ SAFI R. BAHCALL, PH.D.
Safi R. Bahcall, Ph.D.
President and Chief Executive Officer
(principal executive officer)

Dated: November 4, 2010

/s/ KEITH S. EHRLICH
Keith S. Ehrlich
Vice President, Finance and Administration,
Chief Financial Officer
(principal accounting and financial officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.