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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2008

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 (Address of principal executive offices)	**02421** (Zip Code)

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

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

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.0001 Par Value Per Share	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Exchange Act: **None.**

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of

1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, 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.

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

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate), computed by reference to the price at which the common stock was last sold on June 30, 2008, the last business day of the registrant's most recently completed second fiscal quarter, was $106,695,002.

As of March 20, 2009 the registrant had 33,919,584 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents (or parts thereof) are incorporated by reference into the following parts of this Annual Report on Form 10-K: Certain information required in Part III of this Annual Report on Form 10-K is incorporated from the registrant's Proxy Statement for the 2009 Annual Meeting of Stockholders to be held on June 10, 2009.

PART I

Item 1. BUSINESS

The Company

Synta Pharmaceuticals Corp. is 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 three clinical-stage drug candidates and several drug candidates in the preclinical and discovery stages, each of which has a distinct chemical structure, mechanism of action, and market opportunity. Each of our drug candidates was discovered and developed internally using our proprietary, unique chemical compound library and integrated discovery engine. In October 2007, we entered into a global partnership with GlaxoSmithKline, or GSK, for the joint development and commercialization of elesclomol, one of our oncology drug candidates. In December 2008, we entered into a partnership with Hoffmann-La Roche, or Roche, for our CRACM inhibitor program. We retain all rights to our other drug candidates and programs.

We believe that our efforts since the beginning of 2008 have resulted in significant progress on a number of fronts, including: (1) effectively conducting a pivotal, Phase 3 clinical trial for elesclomol in approximately 150 centers in 15 countries and achieving a rapid enrollment rate; (2) earning $40 million in milestone payments from our partner, GSK, for the elesclomol program; (3) initiating a prostate and a monotherapy trial for elesclomol; (4) making substantial progress in elucidating the mechanism of action of elesclomol and generating productive academic collaborations to further explore the science underlying this mechanism of action; (5) initiating and advancing two solid-tumor dose-escalating trials for our Hsp90 inhibitor, STA-9090, which have shown encouraging results, including signs of clinical and biological activity; (6) preparing for and initiating trials in hematologic cancers for STA-9090; (7) generating productive academic collaborations that have provided substantial evidence of the advantages of STA-9090 that have led and will continue to lead to publications in peer-reviewed scientific journals and presentations at scientific meetings; and (8) conducting an in-depth partnership effort for our CRACM inhibitor program, which resulted in entering into a favorable agreement with a leading multinational pharmaceutical company. This partnership provided us with a $16 million up-front payment, reimburses us for all program research, preclinical, and clinical costs that will be incurred by us, and provides us with substantial milestone payments as well as royalties on sales from any resulting approved, marketed products.

We believe that our demonstrated ability to generate promising new drug candidates from our discovery platform, our ability to effectively enroll and conduct robust clinical trials, and our ability to enter into attractive partnerships with leading multinational pharmaceutical companies are important competitive advantages. We believe that these competitive advantages, together with our current diverse pipeline of drug candidates with distinct chemical structures and mechanisms of action, provide us with both near-term and long-term sustainable growth opportunities.

Key Post-2008 Developments

In February 2009, we suspended our global Phase 3 clinical trial of elesclomol plus paclitaxel in metastatic melanoma, called the SYMMETRY trial, following a meeting of the independent data monitoring committee, or DMC. The DMC noted that while an interim review of the primary endpoint of progression-free survival, or PFS, showed trends that favored the elesclomol arm of the study; the interim analysis of the secondary endpoint of overall survival, or OS, favored the control arm. The DMC report noted that the DMC "cannot be sure whether this is an adverse treatment effect, an effect of differing post-progression (off-study) treatments or a chance effect not relating to the study drugs at all" and that this was a "paradoxical outcome" not foreseen prior to study initiation. The DMC also noted in its report that the OS for the elesclomol arm is in the range of what one would expect for

survival rates in large, multinational trials in metastatic melanoma; while the OS for the control arm was somewhat longer than would be expected. Of note is that the OS data from the SYMMETRY trial are not yet mature, in that a relatively small fraction of the total survival events have occurred, meaning that OS results from this trial may change over time. We expect the survival data to mature by the end of 2009.

Based on the interim review, the DMC recommended that unblinded data be released to us, and that we provide appropriate notification to investigators and patients in order that they could jointly make informed decisions on whether to continue therapy. Following our review of the data and further discussion with the DMC, we decided to suspend the SYMMETRY trial and our other ongoing elesclomol trials, including our trial in prostate cancer and our single-agent dose-escalating trial, pending further analysis of the SYMMETRY trial results. We also notified the Food and Drug Administration, or FDA, of the SYMMETRY trial findings and our decision to suspend all ongoing elesclomol trials. Following our report to the FDA, the FDA concurred with our decision and placed each of these trials on clinical hold.

In our analysis of the SYMMETRY trial results to date, we have not identified any target organ toxicities or adverse events related to elesclomol that might explain an imbalance of deaths between the two arms. We and our partner for the elesclomol program, GSK, are currently investigating a number of aspects related to the SYMMETRY trial results that will inform our choices for future direction of this program, including whether or not to restart the program in melanoma and/or other cancer indications. Following the suspension of our SYMMETRY clinical trial, in March 2009, we implemented a workforce reduction of approximately 90 positions, to a total employee base of approximately 130 positions, in order to align our workforce with our revised operating plans.

Company Strategy

Our strategy is to use our proprietary chemical compound library and discovery capabilities, as well as strength in designing and effectively conducting robust clinical trials, to discover, develop, and commercialize novel small-molecule drug candidates for treating cancer, autoimmune, and chronic inflammatory diseases. Important elements of our long-term strategy include:

- reducing risk and increasing the probability of clinical and commercial success by maintaining, and continuously replenishing, a drug candidate pipeline that is diversified across distinct mechanism categories, chemical compound families, and therapeutic opportunities;
- using our discovery capabilities to expand and protect our intellectual property position and enhance our competitive advantages for each of these programs, including developing intellectual property associated with related chemical structures, mechanism of action, and method of use;
- using our translational research and biomarker identification capabilities to assist in identifying the most promising patient populations and optimizing the design of clinical trials for our drug candidates;
- maintaining the flexibility to partner or keep individual programs, in order to achieve the balance of fully-owned versus partnered programs that can best enhance long-term shareholder value; and
- maintaining a strong cash position, such that we have the resources and skills to continue both to advance our current pipeline of compounds and replenish our pipeline with new compounds from our discovery engine.

Our Drug Candidate Pipeline

The following table summarizes the status of our most advanced research and development programs:

	Product Candidate	Disease	Stage	Development Status
Oncology	**Elesclomol** Oxidative stress inducer *(partner: GSK)*	Metastatic melanoma	Phase 2b	Completed—met primary endpoint
		Metastatic melanoma	Phase 3 (SYMMETRY)	Suspended Feb 2009
		Prostate cancer	Phase 1/2	Suspended pending analysis of SYMMETRY results
		Solid tumor (monotherapy)	Phase 1	Suspended pending analysis of SYMMETRY results
	STA-9090 Hsp90 inhibitor *(Synta owned)*	Solid tumors (once per week administration)	Phase 1	Ongoing
		Solid tumors (twice per week administration)	Phase 1	Ongoing
		Hematologic cancers (twice per week administration)	Phase 1/2	Ongoing
		Hematologic cancers (once per week administration)	Phase 2	Planned Q3 2009
		Additional cancers	Phase 2	Planned 2H 2009
	2nd generation Hsp90 inhibitor *(Synta owned)*	Cancer	Preclinical development	Ongoing
	STA-9584 Vascular disrupting agent *(Synta owned)*	Cancer	Preclinical development	Ongoing

	Product Candidate	Disease	Stage	Development Status
Inflammatory Diseases	**Apilimod (STA-5326)** Oral IL-12/23 inhibitor *(Synta owned)*	Rheumatoid arthritis	Phase 2a	Results expected 2H 2009
	Oral CRACM channel inhibitor *(partner: Roche)*	Autoimmune diseases, Respiratory conditions (asthma/COPD)	Preclinical development	Targeting Phase 1 start in 2010
	2nd generation CRAC channel inhibitor *(partner: Roche)*	Autoimmune diseases, Respiratory conditions (asthma/COPD)	Lead optimization	Ongoing

In the above table and throughout this report, lead optimization indicates that compounds have shown activity, selectivity, and efficacy in *in vivo* models, as well as an acceptable preliminary safety profile. These compounds are being optimized for potency, drug-like properties, and safety before entering into preclinical development. Preclinical development activities include manufacturing, formulation, and full toxicology studies in preparation for a Phase 1 clinical trial. Phase 1 indicates initial clinical safety testing and pharmacological profiling in healthy volunteers, with the exception that Phase 1 clinical trials in oncology are typically performed in patients with cancer. Phase 2 involves efficacy testing and continued safety testing in patients with a specific disease, and may include separate Phase 2a and Phase 2b clinical trials. Phase 2a clinical trials typically test the drug candidate in a small number of patients and are designed to provide early information on drug safety and efficacy. Phase 2b clinical trials typically involve larger numbers of patients and comparison with placebo, standard treatments, or other active comparators. Phase 3 indicates a confirmatory study of efficacy and safety in a larger patient population, and typically involves comparison with placebo, standard treatments, or other active comparators.

Oncology Programs

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

- *Elesclomol, ROS-inducer program.* Elesclomol is an oncology drug candidate that we believe kills cancer cells by triggering programmed cell death through elevating levels of reactive oxygen species, or ROS. In October 2007, we entered into a global partnership with GSK to jointly develop and commercialize elesclomol for all indications. In February 2009, we suspended the Phase 3 SYMMETRY trial, following a DMC meeting in which the DMC noted that while an interim review of the primary endpoint of PFS showed trends that favored the elesclomol arm of the study; the interim analysis of the secondary OS endpoint favored the control arm. We simultaneously suspended our other ongoing elesclomol studies, including our trial in prostate cancer and our single-agent dose-escalating trial, pending further analysis of the SYMMETRY trial results. The FDA has also placed our elesclomol trials on clinical hold. We and our partner for the elesclomol program, GSK, are currently investigating a number of aspects related to the SYMMETRY trial results that will inform our choices for future direction of this program, including whether or not to restart the program in melanoma and/or other cancer indications.

- *STA-9090, Hsp90 inhibitor program.* STA-9090, our novel, small molecule Hsp90 inhibitor, is enrolling patients in two Phase 1 clinical trials in solid tumors and one Phase 1/2 clinical trial in

hematologic cancers. We plan to initiate a Phase 2 trial in hematologic cancers in the third quarter of 2009 and one or more additional Phase 2 studies in additional cancer types during the second half of 2009. We also have a second generation, small molecule Hsp90 inhibitor in preclinical studies, and additional Hsp90 inhibitors in the research stage that are designed to be orally administered.

- *STA-9584, vascular disrupting agent.* STA-9584, our novel small molecule compound that disrupts the blood vessels that supply tumors with oxygen and essential nutrients, is in preclinical development.

Oncology Background

Cancers are diseases characterized by abnormal and uncontrolled cell growth and division, typically leading to tumor formation. As a tumor grows, it can directly disrupt organ function at its site of origin. In addition, cancer cells can also spread to other organs, such as the brain, bones and liver, by a process called metastasis. The growth of metastatic tumors at these new sites can disrupt the function of these other organs. There are many kinds of cancer, but all are characterized by uncontrolled growth of abnormal cells.

The World Health Organization estimates that more than 11 million people are diagnosed with cancer every year worldwide, and seven million people die from the disease annually. The American Cancer Society estimates that approximately 1.4 million people in the United States will be diagnosed with cancer in 2008, and approximately 566,000 people will die from the disease.

According to a 2007 IMS health report, oncology products are the largest therapeutic class of pharmaceuticals in the world with global sales of $41.4 billion in 2007.

Elesclomol

Elesclomol is an investigational oncology drug candidate which we believe triggers programmed cell death in cancer cells by elevating levels of ROS. In a double-blind, randomized, controlled, multicenter Phase 2b clinical trial, elesclomol met the primary endpoint of extending PFS in patients with stage IV metastatic melanoma.

In February 2009, we suspended the Phase 3 SYMMETRY trial, following a DMC meeting in which the DMC noted that while an interim review of the primary endpoint of progression-free survival, or PFS, showed trends that favored the elesclomol arm of the study; the interim analysis of the secondary OS endpoint favored the control arm. Based on the interim review, the DMC recommended that unblinded data be released to us, and that we provide appropriate notification to investigators and patients in order that they could jointly make informed decisions on whether to continue therapy. Following our review of the data and further discussion with the DMC, we decided to suspend the SYMMETRY trial and our other ongoing elesclomol trials, including our trial in prostate cancer and our single-agent dose-escalating trial, pending further analysis of the SYMMETRY trial results. We also notified the FDA of the SYMMETRY trial findings and our decision to suspend all ongoing elesclomol trials. Following our report to the FDA, the FDA concurred with our decision, and placed each of these trials on clinical hold.

In our analysis of the SYMMETRY trial results to date, we have not identified any elesclomol-related target organ toxicities that might explain an imbalance of deaths between the two arms. We and our partner for the elesclomol program, GSK, are currently investigating a number of aspects related to the SYMMETRY trial results that will inform our choices for future direction of this program, including whether or not to restart the program in melanoma and/or other cancer indications.

Elesclomol's Mechanism of Action

Elesclomol is a novel, injectable small molecule that we believe rapidly and potently induces the generation of ROS in cancer cells, increasing the level of oxidative stress in cancer cell and ultimately leading to programmed cell death, or apoptosis.

ROS is a collective term used to describe chemical species that are produced as byproducts of normal oxygen metabolism and include superoxide, hydrogen peroxide, and the hydroxyl radical. In normal cells, ROS are produced at low levels and are effectively neutralized by the cells' antioxidant system. In contrast, cancer cells produce elevated levels of ROS due to their increased metabolic activity, increased proliferation rate and alterations in mitochondria function, resulting in oxidative stress. Sustained levels of ROS that exceed the cells' antioxidant capacity can readily induce cell death by apoptosis. We believe that oxidative stress is one of the most fundamental differences between cancer cells and normal cells, and that this difference causes cancer cells to be particularly vulnerable to agents that can selectively elevate ROS.

We believe the evidence that the primary mechanism of action of elesclomol is through induction of ROS is strong. This evidence includes:

- Gene transcript profiles of cancer cells before versus after application of elesclomol show the characteristic signatures of an immediate, potent oxidative stress response. This response includes the rapid induction of heat shock protein genes such as heat shock protein 70, or Hsp70, metallothioneins, antioxidants, and other stress response genes.

- Direct cellular measurements of specific ROS, such as hydrogen peroxide, show strong time-dependent and dose-dependent induction by elesclomol.

- The effects of elesclomol are blocked by applying antioxidants known to eliminate ROS.

We believe that once ROS levels in cancer cells exceed the breaking point, cell death occurs through apoptosis via the intrinsic mitochondrial pathway. Apoptotic cell death through the mitochondrial pathway involves the oxidation of cardiolipin, release of cytochrome c from the mitochondria, and activation of the caspase cascade. Critical in this process is the opening of the mitochondrial outer membrane pores allowing the escape of cytochrome c which then activates the caspase cascade that causes apoptosis. By both direct action and indirect signaling, we believe that the ROS generated by elesclomol treatment causes the opening of the mitochondrial pores and the release of cytochrome c. The effect of elesclomol on the Bcl-2 family of apoptosis regulators may be of particular interest. ROS causes a change in the conformation of the pro-apoptotic protein Bax, leading to its association with the mitochondria and the opening of the pores. Much academic and industry research has focused on inhibiting anti-apoptotic proteins such as Bcl-2 and XIAP. These proteins act to block the opening of the pores, and thereby suppress apoptosis induced by many anti-cancer agents. We believe that elesclomol treatment causes a decrease in the level of these anti-apoptotic proteins.

By activating multiple apoptosis signaling pathways, activating pro-apoptotic Bax, and inhibiting anti-apoptotic Bcl-2 family members, we believe that elesclomol delivers a powerful apoptotic signal. Importantly, these activities appear to facilitate the ability of other cancer drugs to induce the opening of the mitochondrial pores leading to apoptosis. In this way, we believe that elesclomol can drive apoptosis in the presence of another cancer drug which may be delivering an apoptotic signal that is below the threshold needed to activate death or normally may be effectively blocked by anti-apoptotic proteins. We have shown in preclinical *in vivo* models that elesclomol significantly enhanced the anti-tumor activity of paclitaxel, docetaxel, rituximab, and gemcitabine, while adding minimal additional toxicity. Efficacy has been demonstrated in a variety of animal models of cancer, including breast, lung, lymphoma, colorectal, cervical carcinoma and melanoma.

We believe that this mechanism of apoptosis induction is highly cancer selective. Since normal cells have far lower baseline ROS levels and higher antioxidant capacity, they do not experience the oxidative stress and apoptosis induction seen in cancer cells treated with elesclomol. Our preclinical safety studies showed that the addition of elesclomol added little or no toxicity to that seen with paclitaxel alone, and that elesclomol has a relatively high therapeutic index, or margin between effective dose and toxic dose. We believe that the favorable safety profile that has been observed preclinically and clinically with elesclomol is due to the pronounced difference between cancer cells and normal cells in their respective ability to withstand such an increase in oxidative stress.

We believe that elevated oxidative stress is one of the most fundamental features that differentiates cancer cells from normal cells. By taking advantage of this fundamental difference, elesclomol may offer the potential for a novel anti-cancer approach that is broadly effective across cancer types in conjunction with ROS-sensitive chemotherapeutics such as paclitaxel, while maintaining an attractive safety profile.

Phase 2b Clinical Data in Metastatic Melanoma

Melanoma is the deadliest type of skin cancer and is the sixth most commonly diagnosed cancer in the United States. The National Cancer Institute has estimated that the prevalence of melanoma in the United States, or the number of patients alive who have been diagnosed with the disease, currently is more than 660,000. The American Cancer Society estimates that in 2008 the incidence or number of newly diagnosed cases, of melanoma in the United States will be approximately 62,500, with 8,400 deaths from the disease.

Melanoma is classified into four stages, which are based on well-defined criteria, including characteristics of the primary tumors, involvement of the regional lymph nodes, and the extent and location of metastases. When melanoma is discovered and treated in the early stages, where the cancer is confined to a local area, patients have a relatively high rate of survival. For example, stage I patients have a five-year survival rate of between 90 and 95%. Once melanoma has advanced to stage III, where the cancer has spread to the regional lymph nodes, or stage IV, where the cancer has spread to distant organs, the prognosis for patients is much worse, with five-year survival rates less than 20%. We are unaware of any reliable industry survey data specifically for the prevalence of metastatic melanoma in the United States or worldwide. Commonly used estimates assume that 5-10% of all patients diagnosed have metastatic disease, which estimates the prevalence of metastatic melanoma at approximately 30,000 to 60,000 patients in the United States.

Our Phase 2b clinical trial of elesclomol in metastatic melanoma enrolled a total of 81 metastatic melanoma patients at 21 centers in the United States. This clinical trial was conducted in a double-blind, randomized, controlled fashion and compared the effects of elesclomol in combination with paclitaxel, a widely used chemotherapy, versus paclitaxel alone. The primary endpoint for assessing efficacy was PFS. PFS is calculated for each patient by measuring the time from the patient's assignment to a treatment group in the trial until a PFS event, which is the earlier of tumor progression or death.

In our Phase 2b trial, elesclomol plus paclitaxel demonstrated a statistically significant improvement in PFS compared to treatment with paclitaxel alone. In the intent-to-treat analysis, which includes all 81 patients, median PFS increased from 1.8 months for patients treated with paclitaxel alone to 3.7 months for patients treated with elesclomol plus paclitaxel. The percentage of patients who survived and were free of tumor progression at six months more than doubled from 15% for patients treated with paclitaxel alone to 35% for patients treated with elesclomol plus paclitaxel. The statistical significance of the improvement in PFS is described by a *P*-value, which measures the probability that the difference is due to chance alone. A *P*-value of less than 0.05 is considered statistically significant and unlikely due to chance. The *P*-value in this analysis was 0.035.

Including this Phase 2b trial, we had generated safety data for approximately 300 patients from over 50 medical centers in the United States and Canada. These safety data suggested that elesclomol was well tolerated.

Elesclomol Regulatory Events

In November 2006, we received Fast Track designation from the FDA, for the development of elesclomol for the treatment of metastatic melanoma. Although Fast Track review does not affect the standards for approval, the FDA attempts to facilitate early and frequent meetings with a sponsor of a Fast Track designated drug. In December 2007, we received orphan drug designation for elesclomol in this indication in the United States from the FDA. Orphan drug status is designed to encourage biotechnology and pharmaceutical companies to develop drugs for rare diseases affecting fewer than 200,000 people in the United States by providing seven years of market exclusivity following approval.

The SYMMETRY Phase 3 Clinical Trial

Based on the results of our Phase 2b trial, in the third quarter of 2007, we initiated a global, pivotal Phase 3 clinical trial of elesclomol in metastatic melanoma, called the SYMMETRY trial. The SYMMETRY trial was being conducted under the terms of a Special Protocol Assessment, or SPA, agreed to by the FDA. The SPA process provides for a written agreement between a clinical trial sponsor and the FDA that the proposed design and planned analyses of the clinical trial is sufficient to support regulatory approval of a drug candidate, unless public health concerns unrecognized at the time of the protocol assessment become evident.

The SYMMETRY trial was a double blind study calling for target enrollment of 630 patients to be treated with a combination of elesclomol and paclitaxel or paclitaxel alone. In early February 2009, we achieved our enrollment target of 630 patients in the SYMMETRY trial. In late February 2009, the DMC reported to us at that time that while the primary endpoint of PFS showed trends that favored the elesclomol arm of the study; early analysis of the secondary OS endpoint favored the control arm. The DMC report noted that the DMC "cannot be sure whether this is an adverse treatment effect, an effect of differing post-progression (off-study) treatments or a chance effect not relating to the study drugs at all" and that this was a "paradoxical outcome" not foreseen prior to study initiation. The DMC also noted in its report that the OS for the elesclomol arm is in the range of what one would expect for survival rates in large, multinational trials in metastatic melanoma; while the overall survival for the control arm was somewhat longer than would be expected. Of note is that the OS data from the SYMMETRY trial are not yet mature, in that a relatively small fraction of the total survival events have occurred, meaning that OS results from this trial may change over time. We expect the survival data to mature by the end of 2009.

Based on these observations, the DMC recommended that unblinded data be released to us, and that we provide appropriate notification to investigators and patients in order that they could jointly make informed decisions on whether to continue therapy. Following our review of the data and further discussion with the DMC, we decided to suspend the SYMMETRY trial and our other ongoing elesclomol trials, including our trial in prostate cancer and our single-agent dose-escalating trial, pending further analysis of the SYMMETRY trial results. We also notified the FDA, of the SYMMETRY trial findings and our decision to suspend all ongoing trials. Following our report to the FDA, the FDA concurred with our decision, and placed each of these trials on clinical hold.

In our analysis of the SYMMETRY trial results to date, we have not identified any elesclomol-specific target organ toxicities or adverse events related to elesclomol that might explain an imbalance of deaths between the two arms. We and our partner for the elesclomol program, GSK, are currently investigating a number of aspects related to the SYMMETRY trial results that will inform our choices

for future direction of this program, including whether or not to restart the program in melanoma and/or other cancer indications.

Prior to suspension of the SYMMETRY trial, we had initiated clinical trials in the following settings. Currently, these studies are suspended pending the outcome of our investigation of the SYMMETRY trial results:

- *Prostate cancer.* In November 2008, we treated our first patient with advanced stage prostate cancer in a Phase 1/2 clinical trial of our water-soluble, sodium salt formulation of elesclomol, or elesclomol sodium, in combination with docetaxel. This trial was designed to be an open-label, dose-escalation/dose response study of elesclomol sodium in combination with a fixed dose of docetaxel and concomitant prednisone in patients with metastatic hormone refractory disease. In total, prior to suspending the trial in February 2009, four patients were treated, of which three were evaluable for response, as measured by lowering of prostate-specific antigen, or PSA. All three of these patients showed a greater than 50% reduction of PSA.

- *Solid cancers (monotherapy).* In January 2009, we treated our first patient in an open-label Phase 1 dose escalation study of elesclomol sodium as a single agent in patients with advanced solid tumors that are metastatic or unresectable. Objectives of this study include characterizing the safety and tolerability of elesclomol sodium administered once weekly as a single agent, determining the pharmacokinetics of elesclomol sodium, and evaluating anti-tumor activity. In total, two patients were treated prior to suspending the study.

GSK Elesclomol Alliance

In October 2007, we entered into a collaborative development, commercialization and license agreement with GSK for elesclomol, or the GSK Agreement. In the United States, we and GSK jointly develop and commercialize elesclomol. Outside the United States, GSK is responsible for regulatory filings and commercialization of elesclomol. We are responsible for and fund activities related to seeking FDA approval of elesclomol for the treatment of metastatic melanoma. GSK pays the majority of total worldwide development costs for elesclomol; we pay a modest proportion. GSK is responsible for the manufacturing of elesclomol.

Under the GSK Agreement, we are eligible to receive up to $1.01 billion in milestone and other payments, share 40-50% of the profits and losses from sales in the United States, and receive double-digit tiered royalties from sales outside of the United States. The milestone payments include $585 million in pre-commercial milestone payments—which are related to operational progress, clinical progress, or regulatory filings and outcomes—and $300 million in sales milestones. To date, we have received $130 million in non-refundable payments from GSK, which include an $80 million upfront cash payment in 2007, $40 million in milestone payments in 2008 and $10 million in milestone payments in 2009.

GSK may terminate the agreement upon not less than three months' written notice at any time prior to the date of first commercial sale of elesclomol and not less than six months' written notice at any time on and after such date. Under the terms of the agreement, if GSK elected to terminate, all rights to the elesclomol program would be returned to us and we may continue to develop elesclomol alone or with another partner. In such case, we would owe a small royalty to GSK on future sales of elesclomol. We are currently working with GSK to evaluate the data from the SYMMETRY trial to determine if we should continue the development of elesclomol or terminate the program. To date, GSK has not notified us of any intent to terminate the GSK agreement.

STA-9090

STA-9090 is a novel, small molecule Hsp90 inhibitor drug candidate that we are developing for the treatment of a variety of cancers. STA-9090 has a unique chemical structure that is distinct from 17-AAG (geldanamycin) and other ansamycin derivatives. In preclinical studies, STA-9090 has shown the ability to inhibit multiple kinases with comparable potency to, and a broader activity profile than, specific kinase inhibitors such as imatinib (Gleevec), erlotinib (Tarceva), and sunitinib (Sutent). In addition, STA-9090 has shown potency 10 to 100 times greater than the ansamycin family of Hsp90 inhibitors, as well as activity against a wider range of kinases. In *in vivo* models, STA-9090 has shown strong efficacy in a wide range of cancer types, including cancers resistant to Gleevec, Tarceva, and Sutent. We believe that this creates a distinct activity profile for STA-9090 and is a competitive advantage.

STA-9090's Mechanism of Action

STA-9090 inhibits heat shock protein 90, or Hsp90, a chaperone protein that regulates the activity of numerous signaling proteins that trigger uncontrolled proliferation in cancer cells, in particular kinase proteins. Examples of kinase proteins include c-Kit, Bcr-Abl, Her2, EGFR, and others that are the targets of approved direct kinase inhibitors such as Gleevec, Herceptin, Tarceva, and Erbitux. 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 Ongoing Clinical Trials

We are currently enrolling patients in two Phase 1, open-label studies in patients with solid-tumor cancers to identify the maximum tolerated dose, or MTD, of STA-9090 based on once- and twice-a-week intravenous dosing schedules, respectively. In addition to an evaluation of safety and tolerability, patients in each of these studies will be assessed for tumor response based on the industry standard Response Evaluation Criteria in Solid Tumors, or RECIST, criteria. We also recently initiated a Phase 1/2 open-label clinical study of STA-9090 in patients with hematologic cancers, with a twice-a-week dosing schedule. Later in 2009, we plan to initiate a Phase 2 trial in hematologic cancers with a once-a-week dosing schedule as well as one or more Phase 2 studies in solid-tumor cancers.

In our Phase 1 solid-tumor trials, we have escalated multiple dose-level cohorts in each study and have to date observed an acceptable safety profile. We have also seen biomarker activity that has increased with increasing doses of STA-9090. In addition to the acceptable safety profile and encouraging signs of biological activity, we have seen two confirmed responses, as defined by RECIST criteria, and a number of cases of prolonged stable disease. These responses and cases of stable disease occurred in a patient population that is generally refractory or resistant to treatments with other agents. We believe that these data are encouraging, suggest clinical activity of STA-9090 and support continued evaluation of STA-9090 in further studies.

Future Development Plans for STA-9090

The mechanism of action and underlying biology we have observed with this compound suggest a number of specific, promising opportunities for evaluating the potential of STA-9090 to benefit patients. We and our collaborators have shown that STA-9090 is active in a number of models of cancers highly dependent on the client proteins of Hsp90. These models include hematologic cancers; cancers with specific characteristics such as resistance to known kinase inhibitors such as Gleevec, Sutent, and Tarceva; and certain other solid tumor cancers highly dependent on the Hsp90 client proteins. Examples of cancer-associated client proteins of Hsp90 include c-KIT in gastrointestinal stromal

tumors, epidermal growth factor receptor (EGFR) in lung cancer, and BCR-ABL in chronic myelogenous leukemia.

In 2009, we intend to initiate a number of clinical trials to explore the potential benefit of STA-9090 in different cancer types. In the first quarter of 2009, we initiated one Phase 1/2 trial in hematologic malignancies with a twice-per-week dosing schedule, designed both to identify the dose for further study in this population and to evaluate initial signs of activity. We also plan to initiate a Phase 2 study in hematologic malignancies, with a once-per-week dosing schedule, at the MTD determined from our ongoing Phase 1 trial in solid tumors with the once-per-week dosing schedule. In addition, we plan to initiate one or more Phase 2 trials in certain solid tumor cancers later this year. The specific choice of cancer indications and trial designs for these indications will be determined based on discussions with our clinical collaborators and further analysis of the results from our ongoing trials.

We expect to present data from this program at scientific and medical meetings and in peer-reviewed journals later this year.

2nd Generation Hsp90 Inhibitors

Earlier this year, we initiated preclinical development of a follow-on, small molecule, injectable Hsp90 inhibitor. This compound has a unique chemical structure that we believe enhances certain desirable properties. In addition, we are currently working on a new series of Hsp90 inhibitor compounds that may be orally administered. These compounds are in the lead optimization stage.

STA-9584

STA-9584 is a novel, injectable, small molecule compound that disrupts the blood vessels that supply tumors with oxygen and essential nutrients. In preclinical testing, 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. This program is currently in preclinical development.

STA-9584's Mechanism of Action

STA-9584 is among a class of compounds known as Vascular Disrupting Agents, or VDAs. In preclinical models, we have observed that STA-9584 efficiently kills both cancer cells in tumors, as well as the endothelial cells that form blood vessels in tumors, without affecting the vasculature of non-tumor tissues. Because STA-9584 appears to be highly potent and possess a mechanism that is different from many other classes of anti-cancer agents, we believe that STA-9584 has the potential to be used in both single-agent and combination settings in the clinic.

We believe that the inhibition of angiogenesis and disruption of existing tumor vasculature is a compelling therapeutic approach, as it effectively prevents transport of oxygen and essential nutrients needed by the tumor and can lead to tumor shrinkage, and possibly, complete tumor eradication. First generation angiogenesis inhibitors, such as Avastin, work primarily by preventing the formation of new tumor vessels. In contrast, STA-9584's anti-vasculature effects are two-fold: disrupting both new and established tumor vessels. We believe that STA-9584's more complete anti-vasculature mechanism, in combination with an independent ability to directly kill cancer cells, may increase the potential anti-cancer activity of this compound versus first generation angiogenesis inhibitors and other endothelial cell-targeted agents.

Our Inflammatory Disease Programs

We have one clinical-stage program and one preclinical-stage program 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.

Inflammatory Disease Background

Inflammatory diseases are typically caused by aberrant activity of the immune system. The immune system normally protects the body from injury and infection, but in autoimmune diseases it attacks and damages the body's own tissues. Major autoimmune diseases include rheumatoid arthritis, psoriasis, Crohn's disease, and multiple sclerosis.

Despite the availability of numerous therapeutic options for these diseases, inflammatory diseases remain major causes of impairment of daily activities, reduced quality of life, significant disability, and sometimes death. Current therapeutic treatments for chronic inflammatory diseases have the potential to cause musculoskeletal, endocrine, neurologic, and metabolic side effects, which can limit their long-term use. The limitations of conventional treatments, together with a growing understanding of the pathogenesis of inflammatory diseases, have stimulated significant interest in the development of targeted immune modulators for the management of chronic inflammatory diseases.

Apilimod (STA-5326)

Apilimod is a novel, orally administered, small molecule drug candidate we are developing for the treatment of autoimmune and other chronic inflammatory diseases. Apilimod inhibits the production of the cytokines interleukin-12, or IL-12, and interleukin-23, or IL-23, and thereby down-regulates the inflammation pathways that underlie certain autoimmune and inflammatory diseases. We submitted the initial IND for apilimod in March 2003.

Apilimod Mechanism of Action

Apilimod selectively inhibits production of the cytokines IL-12 and IL-23. The IL-12 cytokine is an important "master switch" that triggers the immune response of the T cell known as T helper type 1, or Th1. T cells play a critical role in the coordination of the body's immune response, and while Th1 cells are normally involved in the body's defense against intracellular attack by bacteria and other micro organisms, an overactive Th1 response can lead to various autoimmune or inflammatory diseases including Crohn's disease, psoriasis, rheumatoid arthritis, multiple sclerosis, and common variable immunodeficiency, or CVID. The IL-23 cytokine is critical to the generation of a class of T cells known as Th17, which produce other pro-inflammatory proteins such as IL-17, which are critical in driving chronic inflammation. We believe that the clinical trial results observed with anti-IL-12/23 antibody therapies validate the inhibition of IL-12/23 activity as a promising approach for the treatment of inflammatory and autoimmune diseases.

Apilimod Ongoing Clinical Trial

We are currently conducting a Phase 2a clinical trial of apilimod in patients with rheumatoid arthritis, or RA. The RA study completed initial enrollment of 22 patients and the preliminary results showed encouraging biomarker and clinical signals suggesting activity of apilimod in this indication. We have elected to enroll an additional cohort in this trial to explore a higher dose of apilimod. We expect to have results from this higher dose cohort in the second half of 2009.

Future Development Plans for Apilimod

We are also exploring the possibility of using apilimod in a topical formulation to treat inflammatory diseases of the skin, such as psoriasis. We have developed a promising prototype formulation and expect to have proof-of-concept studies conducted in animals during the second half of 2009.

2nd Generation IL-12/23 Inhibitors

In addition to apilimod, we have also identified several other small molecule IL-12/23 inhibitors that we believe have comparable activity to apilimod with significantly improved pharmaceutical properties. We believe that these new compounds represent a promising opportunity to develop next generation drug candidates that could be administered orally at higher doses than apilimod and potentially address a wider range of serious inflammatory diseases with high unmet medical needs.

CRACM Ion Channel Inhibitors

We have developed novel, small molecule inhibitors of calcium release activated calcium modulator, or CRACM, ion channels expressed on immune cells. The CRACM ion channel is the primary route for calcium entry into T cells and other immune cells, regulating multiple immune cell processes important for initiating and maintaining an inflammatory immune response. 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 rheumatoid arthritis, asthma, chronic obstructive pulmonary disease, or COPD, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. This program is in the lead optimization stage. In December 2008, we entered into a global partnership with Roche to further develop our CRACM inhibitors. We currently have one compound in preclinical development and are targeting Phase 1 initiation in 2010.

We also have additional CRACM inhibitors in lead optimization. Because there are a number of CRACM ion channel targets on immune cells, we believe that our next generation CRACM inhibitor compounds could potentially apply to different immune system diseases and address distinct therapeutic areas, such as RA, allergy/asthma, and transplant rejection.

About Ion Channel Therapeutics

Ion channels, the gateways in cell membranes that regulate the flow of ions into and out of cells, play important roles in cell signaling. Certain ion channels allow electrically excitable cells, such as neurons or muscle cells, to discharge. Drugs that modulate these ion channels have proven to be a successful therapeutic category, with dozens of such drugs on the market and commonly prescribed for the treatment of various neurological and cardiovascular disorders. Our research program targets an ion channel known as the CRACM channel, which is believed to play a key role specifically in immune cells rather than in neurons or muscle cells. CRACM channels regulate the calcium signaling pathway driving immune cell activation and secretion of TNF-alpha, IL-2, and other inflammatory factors. The therapeutic importance of inhibiting this calcium signaling pathway has been demonstrated through clinical experience with calcineurin inhibitors, such as cyclosporine, which are potent immunomodulators but have significant toxicities due to the broad role calcineurin plays in non-immune cells. In contrast to calcineurin, CRACM channels are believed to be critical exclusively to immune cell function. CRACM inhibitors therefore have the potential to achieve potent anti-inflammatory activity with an improved safety profile, creating a new category of disease-modifying agents comparable to biologic agents, such as TNF-alpha inhibitors, but orally available.

Roche CRACM Inhibitor Alliance

In December 2008, Synta and Roche formed a strategic alliance, or the Roche Agreement, to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The goal of this program is to develop a novel category of oral, disease-modifying agents for the treatment of rheumatoid arthritis, asthma, chronic obstructive pulmonary disease (COPD), allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. Under the terms of the Roche Agreement, Roche will fund 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 this research period. We retain certain co-development and co-promotion rights. All preclinical, clinical, and commercial costs will be paid by Roche.

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 research, preclinical development, and clinical development costs that will be incurred by us for the program. These costs include $9 million in committed research support over the initial two year research period. In addition to the committed research support, and preclinical and clinical cost reimbursement, we are eligible to receive milestone payments and royalties for products developed as a result of this collaboration. 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.

Our Drug Discovery Capabilities

Our drug discovery approach is based on the close integration and rapid cycle times among our chemistry, biology, and pharmaceutical development groups. Drug candidates are typically identified using novel chemical structures from our chemical compound library in cell-based assays that are designed to preserve the complexity of biological signaling. Early *in vivo* testing and a rapid optimization process allow us to generate a high number of promising leads from our screening hits, improve the profiles of our compounds, and, in some cases, discover novel pathways or mechanisms of action with the potential to define entirely new categories of treatment.

Our approach integrates the following capabilities and resources:

- *Unique chemical compound library.* Our chemical library contains over 100,000 small molecules and numerous plant extracts collected from universities, non-profit institutions, other organizations, and commercial sources. Many of our compounds are proprietary and not available from commercial sources. This library represents a diverse and distinct set of chemical structures that was not generated using combinatorial chemistry and continues to be a valuable source of lead compounds for drug discovery. We are continuing our compound collection efforts. In addition, for each of our discovery programs we build focused libraries dedicated to particular drug targets. We have modeled the three-dimensional structure of most of our compounds, allowing us to use computer-based, or *in silico*, screening to identify new drug candidates.

- *Broad set of screening assays.* We have high throughput screening capabilities linked to our chemical library that facilitate the rapid identification of new drug candidates. We have developed a wide variety of biochemical and cell-based *in vitro* assays designed to identify promising compounds for treating cancer, immune disorders and other diseases, which form the basis of our initial screening efforts. In addition to assays for identifying new compounds, we

have also developed assays we use for early optimization of safety and pharmacokinetic properties.

- *Robust in vivo testing capabilities.* We have substantial *in vivo* testing facilities that we use for evaluating the safety, efficacy, and pharmaceutical properties of our compounds, including absorption, distribution, metabolism, elimination, and toxicology properties. These facilities are equipped for detailed experimental measurements and surgical tasks, such as the rodent microsurgery we use for sophisticated toxicology assessments. We have experience with a wide range of animal models of disease, including multiple models in cancer, inflammatory diseases and metabolic diseases. We believe the ability to complete early testing of compounds *in vivo*, internally and without dependence on third parties, is a valuable advantage in our ability to rapidly optimize the pharmaceutical properties of our most promising compounds.

- *Multi-functional chemistry capabilities.* We possess a full range of chemistry capabilities, including medicinal chemistry, analytical chemistry, physical chemistry, process development and computational chemistry. Our approach to medicinal chemistry applies the rigorous exploration of permutations of biologically active molecular components to optimize lead compounds. Our in-house process development capability of characterizing and specifying manufacturing processes for our compounds allows us to reduce dependence on third parties and is an important advantage in our ability to successfully commercialize our drug candidates.

- *Methods for novel target elucidation and validation.* Our scientists use expression profiling, RNA interference, affinity purification, proteomics, electrophysiology, and other methods to identify the therapeutic intervention points of novel, promising compounds.

Manufacturing

Our drug candidates and preclinical compounds are small molecules that can be readily synthesized by processes that we have developed. Utilizing our medicinal chemistry and process development capabilities, we have developed manufacturing processes to produce the active pharmaceutical ingredient, or API, for our drug candidates. We also have the internal capability to synthesize small molecule compounds in quantities of up to several hundred grams for use in our preclinical studies, including proof-of-concept studies in animal models, early pharmacokinetic assays, initial toxicology studies, and formulation development. We currently contract with third parties for the synthesis of all materials used in our clinical trials and rely on third party manufacturers for the supply of our drug candidates in bulk quantities and for the production of suitable dosage forms.

The starting materials and reagents required for synthesizing our drug candidates and preclinical compounds are commercially available from multiple sources. We have established a quality control and quality assurance program, including a set of standard operating procedures, analytical methods, and specifications, designed to ensure that our drug candidates are manufactured in accordance with the FDA's current Good Manufacturing Practices, or cGMP, and other applicable domestic and foreign regulations. We have selected manufacturers that we believe comply with cGMP and other applicable regulatory standards. We do not currently expect to manufacture cGMP material internally for our clinical trials nor undertake the commercial scale manufacture of our drug candidates after approval. We will discuss with our current suppliers and other third party manufacturers the long-term supply and manufacture of these and other drug candidates we may develop.

Elesclomol Manufacturing

We are using several different manufacturers for various process steps in the preparation of elesclomol drug product. Although we believe that most of these steps are routine and can be accomplished by other possible manufacturers, the powder filling step involves highly specialized processing, including the automated filling of vials with elesclomol API. We believe that our selected

manufacturer for this step may be one of a limited number of third party contract manufacturers currently capable of conducting this process on our behalf. We have entered into an agreement with this third-party manufacturer that we believe is sufficient for our current requirements.

Under the terms of the GSK Agreement, GSK is responsible for commercial manufacturing of elesclomol API and drug product.

Sales and Marketing

We currently have no sales or distribution capabilities as such, in order to commercialize any of our drug candidates. We will need to develop these capabilities internally or through collaboration with third parties.

Competition

The development and commercialization of new drugs is highly competitive. We will face competition with respect to all drug candidates we may develop or commercialize in the future from pharmaceutical and biotechnology companies worldwide. The key competitive factors affecting the success of any approved product will be its efficacy, safety profile, price, method of administration and level of promotional activity. The efficacy and safety profile of our drug candidates relative to competitors will depend upon the results of our clinical trials and experience with the approved product in the commercial marketplace. For risks associated with competition, see "Risks Related to Our Industry—Our market is subject to intense competition…" under "Risk Factors" below in Part I, Item 1A of this Form 10-K.

Patents and Proprietary Rights

Our success depends in part on our ability to obtain and maintain proprietary protection for our drug candidates, technology, and know-how, to operate without infringing on the proprietary rights of others, and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing U.S. and foreign patent applications related to our proprietary technology, inventions, and improvements that are important to the development of our business. We also rely on trade secrets, know-how, continuing technological innovation, and in-licensing opportunities to develop and maintain our proprietary position.

As of March 20, 2009, our patent portfolio had a total of 710 patents and patent applications worldwide, including specific patent filings with claims to the composition-of-matter and methods of use of elesclomol and apilimod. We own or have exclusively licensed a total of 30 issued U.S. patents and 97 U.S. patent applications, as well as 583 foreign counterparts to these patents and patent applications. With respect to elesclomol, we have two issued U.S. patents that claim the chemical structure of elesclomol that expire no earlier than 2022. Both of these issued U.S. patents also claim related chemical structures, pharmaceutical compositions, and methods for treating a subject with cancer. In addition, we have an issued U.S. patent claiming the salt form of elesclomol that expires no earlier than 2025. We have also filed several U.S. patent applications that have the potential to extend the patent life of elesclomol, including U.S. patent applications claiming aspects of the treatment regimen for metastatic melanoma which, if issued, would expire no earlier than 2026.

With respect to apilimod, we have two issued U.S. patents that claim the chemical structure of apilimod and methods for treating specific disorders using apilimod, respectively. These patents expire no earlier than 2021.

We have pending U.S. patent applications covering compositions-of-matter, methods of treatment and other aspects of our STA-9090, 2nd generation Hsp90 inhibitor, 2nd generation IL-12/23 inhibitor, STA-9584 and CRACM ion channel programs. The patent term of our U.S. patents may potentially be

extended under applicable law or regulations, such as the Patent Term Restoration Act. Counterpart filings to these patents and patent applications have been made in a number of other jurisdictions, including Europe and Japan.

We have also in-licensed various technologies to complement our ongoing clinical and research programs. These licenses generally extend for the term of the related patent and contain customary royalty, termination, and other provisions. We have license agreements with Beth Israel Deaconess Medical Center and The Queen's Medical Center, Inc. that provide us with the exclusive commercial right to certain patent filings made by Beth Israel and Queen's Medical in the field of ion channels. We do not believe that these license agreements are currently material to our business. We also have a non-exclusive license to a U.S. patent assigned to Columbia University that could potentially cover a possible aspect of the elesclomol mechanism. This license is not royalty bearing unless we include specific mechanism language on the label of any approved product, in which case a nominal royalty would be owed.

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, packaging, promotion, storage, advertising, distribution, marketing and export and import of products such as those we are developing. Our drugs must be approved by the FDA through the NDA process before they may be legally marketed in the United States.

United States Government Regulation

NDA Approval Processes

In the United States, the FDA regulates drugs under the Federal Food, Drug and Cosmetic Act, or the FDCA, and implementing regulations. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include:

- the FDA's refusal to approve pending applications;
- license suspension or revocation;
- withdrawal of an approval;
- a clinical hold;
- warning letters;
- product recalls;
- product seizures;
- total or partial suspension of production or distribution; or
- injunctions, fines, civil penalties or criminal prosecution.

Any agency or judicial enforcement action could have a material adverse effect on us. The process of obtaining regulatory approvals and the subsequent substantial compliance with appropriate federal, state, local, and foreign statutes and regulations require the expenditure of substantial time and financial resources.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests according to Good Laboratory Practices;

- submission of an IND, which must become effective before human clinical trials may begin;

- performance of adequate and well-controlled human clinical trials according to Good Clinical Practices to establish the safety and efficacy of the proposed drug for its intended use;

- submission to the FDA of an NDA;

- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current cGMP, to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and

- FDA review and approval of the NDA.

Once a pharmaceutical candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. Some preclinical or nonclinical testing may continue even after the IND is submitted. In addition to including the results of the preclinical studies, the IND will also include a protocol detailing, among other things, the objectives of the clinical trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the first phase lends itself to an efficacy determination. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, specifically places the sponsor on clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with Good Clinical Practices regulations. These regulations include the requirement that all research subjects provide informed consent. Further, an institutional review board, or IRB, at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Each new clinical protocol must be submitted to the FDA as part of the IND. Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1.* The drug is initially introduced into healthy human subjects or patients with the disease and tested for safety, dosage tolerance, pharmacokinetics, pharmacodynamics, absorption, metabolism, distribution and elimination. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.

- *Phase 2.* Involves studies in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

- *Phase 3.* Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These studies are intended to establish the overall risk-benefit ratio of the product and provide, if appropriate, an adequate basis for product labeling.

Phase 1, Phase 2, and Phase 3 testing may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. In addition, an IRB can suspend or terminate approval of a clinical trial at its institutions for several reasons, including if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

During the development of a new drug, sponsors are given an opportunity to meet with the FDA at certain points. These points are prior to submission of an IND, at the end of Phase 2, and before an NDA is submitted. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice, and for the sponsor and FDA to reach agreement on the next phase of development. Sponsors typically use the end of Phase 2 meeting to discuss their Phase 2 clinical results and present their plans for the pivotal Phase 3 clinical trial that they believe will support approval of the new drug. If a Phase 2 clinical trial is the subject of discussion at an end of Phase 2 meeting with the FDA, a sponsor may be able to request a SPA, the purpose of which is to reach agreement with the FDA on the design of the Phase 3 clinical trial protocol design and analysis that will form the primary basis of an efficacy claim. If such an agreement is reached, it will be documented and made part of the administrative record, and it will be binding on the FDA unless public health concerns unrecognized at the time of protocol assessment are evident, and may not be changed except under a few specific circumstances.

On occasion, the FDA may suggest or the sponsor of a clinical trial may decide to use an independent DMC to provide advice regarding the continuing safety of trial subjects and the continuing validity and scientific merit of a trial. In 2006, the FDA published a final Guidance for Clinical Trial Sponsors on the Establishment and Operations of Clinical Trial Data Monitoring Committees in which it describes the types of situations in which the use of a DMC is appropriate and suggests how a DMC should be established and operate. DMCs evaluate data that may not be available to the sponsor during the course of the study to perform interim monitoring of clinical trials for safety and/or effectiveness and consider the impact of external information on the trial. They often make recommendations to the sponsor regarding the future conduct of the trial.

Concurrent with clinical trials, companies usually complete additional animal safety studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and the manufacturer must develop methods for testing the quality, purity and potency of the final drugs. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf-life.

The results of product development, preclinical studies and clinical studies, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, results of chemical studies and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the product. The submission of an NDA is subject to the payment of user fees, but a waiver of such fees may be obtained under specified circumstances. The FDA reviews all NDAs submitted before it accepts them for filing. It may request additional information rather than accept a NDA for filing. In this event, the NDA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing.

Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data. Even if such data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. The FDA reviews an NDA to determine, among

other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the product's identity, strength, quality and purity. Before approving an NDA, the FDA will inspect the facility or facilities where the product is manufactured and tested.

Satisfaction of FDA requirements or similar requirements of state, local and foreign regulatory authorities typically takes at least several years and the actual time required may vary substantially, based upon, among other things, the indication and the type, complexity and novelty of the product. Government regulation may delay or prevent marketing of potential products for a considerable period of time and impose costly procedures upon our activities. Success in early stage clinical trials does not assure success in later stage clinical trials. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all. Even if a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial application of the product. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. Delays in obtaining, or failures to obtain, regulatory approvals for any drug candidate could substantially harm our business and cause our stock price to drop significantly. In addition, we cannot predict what adverse governmental regulations may arise from future U.S. or foreign governmental action.

Expedited Review and Approval

The FDA has various programs, including Fast Track, priority review, and accelerated approval, that are intended to expedite or simplify the process for reviewing drugs, and/or provide for approval on the basis of surrogate endpoints. Even if a drug qualifies for one or more of these programs, we cannot be sure that the FDA will not later decide that the drug no longer meets the conditions for qualification or that the time period for FDA review or approval will be shortened. Generally, drugs that may be eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that offer meaningful benefits over existing treatments. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. Although Fast Track and priority review do not affect the standards for approval, the FDA will attempt to facilitate early and frequent meetings with a sponsor of a Fast Track designated drug and expedite review of the application for a drug designated for priority review. Drugs that receive an accelerated approval may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform post-marketing clinical trials. We have applied for and received Fast Track designation from the FDA for elesclomol for the treatment of metastatic melanoma. However, there can be no assurance that elesclomol will be reviewed or approved more expeditiously than would otherwise have been the case.

Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of the use of our drugs, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's

approval date. The patent term restoration period is generally one-half the time between the effective date of an IND, and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved drug is eligible for the extension and the extension must be applied for prior to expiration of the patent. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we intend to apply for restorations of patent term for some of our currently owned or licensed patents to add patent life beyond their current expiration date, depending on the expected length of clinical trials and other factors involved in the submission of the relevant NDA.

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages, or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA; however, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for this type of disease or condition will be recovered from sales in the United States for that drug. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for seven years. Orphan drug exclusivity, however, also could block the approval of one of our products for seven years if a competitor obtains approval of the same drug as defined by the FDA or if our drug candidate is determined to be contained within the competitor's product for the same indication or disease.

We have been granted orphan drug designation from the FDA for elesclomol for the treatment of metastatic melanoma and plan to apply for orphan drug designation for other elesclomol indications and for other drug candidates that meet the criteria for orphan designation. We may not be awarded

orphan drug status for elesclomol in indications other than melanoma or for any of our other drug candidates or indications. In addition, obtaining FDA approval to market a product with orphan drug exclusivity may not provide us with a material commercial advantage.

Pediatric Exclusivity

Section 505(a) of the FDCA, as amended by the FDA Amendments Act of 2007, permits certain drugs to obtain an additional six months of exclusivity, if the sponsor submits information requested in writing by the FDA, or a Written Request, relating to the use of the drug in children. The FDA may not issue a Written Request for studies on unapproved or approved indications or where it determines that information relating to the use of a drug in a pediatric population, or part of the pediatric population, may not produce health benefits in that population.

We have not requested or received a Written Request for such pediatric studies, although we may ask the FDA to issue a Written Request for such studies in the future. To receive the six-month pediatric market exclusivity, we would have to receive a Written Request from the FDA, conduct the requested studies in accordance with a written agreement with the FDA or, if there is no written agreement, in accordance with commonly accepted scientific principles, and submit reports of the studies. The FDA will accept the reports upon its determination that the studies were conducted in accordance with and are responsive to the original Written Request or commonly accepted scientific principles, as appropriate, and that the reports comply with the FDA's filing requirements. The FDA may not issue a Written Request for such studies or accept the reports of the studies.

Post-approval Requirements

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further FDA review and approval. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

Any drug products manufactured or distributed by us pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things:

- record-keeping requirements;
- reporting of adverse experiences with the drug;
- providing the FDA with updated safety and efficacy information;
- drug sampling and distribution requirements;
- notifying the FDA and gaining its approval of specified manufacturing or labeling changes;
- complying with certain electronic records and signature requirements; and
- complying with FDA promotion and advertising requirements.

Drug manufacturers and their subcontractors are required to register their establishments with the FDA and some state agencies, and are subject to periodic unannounced inspections by the FDA and some state agencies for compliance with cGMP and other laws.

We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products. Future FDA and state inspections may identify compliance

issues at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct.

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed or what the impact of such changes, if any, may be.

Foreign Regulation

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

Under European Union regulatory systems, we may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure, which is compulsory for medicines produced by biotechnology or those medicines intended to treat AIDS, cancer, neurodegenerative disorders, or diabetes and optional for those medicines which are highly innovative, provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for mutual recognition of national approval decisions. Under this procedure, the holder of a national marketing authorization may submit an application to the remaining member states. Within 90 days of receiving the applications and assessments report each member state must decide whether to recognize approval. If a member state does not recognize the marketing authorization, the disputed points are eventually referred to the European Commission, whose decision is binding on all member states.

As in the United States, we may apply for designation of a product as an orphan drug for the treatment of a specific indication in the European Union before the application for marketing authorization is made. Orphan drugs in Europe enjoy economic and marketing benefits, including up to 10 years of market exclusivity for the approved indication unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan-designated product.

Reimbursement

Sales of our products will depend, in part, on the extent to which the costs of our products will be paid by health maintenance, managed care, pharmacy benefit and similar health care management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third-party payors. These health care management organizations and third-party payors are increasingly challenging the prices charged for medical products and services. Additionally, the containment of health care costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures in new jurisdictions or programs, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. If these organizations and third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not reimburse providers

or consumers of our products or, if they do, the level of reimbursement may not be sufficient to allow us to sell our products on a profitable basis.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, imposes requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities which will provide coverage of outpatient prescription drugs. Part D plans include both stand-alone prescription drug benefit plans and prescription drug coverage as a supplement to Medicare Advantage plans. Unlike Medicare Part A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing approval. However, any negotiated prices for our products covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009. This law provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research will be developed by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures will be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate any policies for public or private payors, it is not clear what if any effect the research will have on the sales of our product candidates, if any such product or the condition that it is intended to treat is the subject of a study. Decreases in third party reimbursement for our product candidates or a decision by a third party payor to not cover our product candidates could reduce physician usage of the product candidate and have a material adverse effect on our sales, results of operations and financial condition.

We expect that there will continue to be a number of federal and state proposals to implement governmental pricing controls and limit the growth of healthcare costs, including the cost of prescription drugs. At the present time, Medicare is prohibited from negotiating directly with pharmaceutical companies for drugs. However, Congress is currently considering passing legislation that would lift the ban on federal negotiations. While we cannot predict whether such legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and profitability.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products.

Employees

As of March 20, 2009, we had 129 full time employees, including a total of 58 employees who hold M.D. or Ph.D. degrees. 97 of our employees are primarily engaged in research and development activities, and 32 are primarily engaged in general and administrative activities. Our employees are not represented by any collective bargaining unit, and we believe our relations with our employees are good.

Company History and Available Information

We commenced operations in July 2001. In September 2002, we acquired Principia Associates, Inc., which had previously acquired Shionogi BioResearch Corp., a U.S.-based drug discovery subsidiary of the Japanese pharmaceutical company, Shionogi & Co., Ltd. In this acquisition, we acquired a unique chemical compound library, an integrated set of drug discovery capabilities, and a pipeline of preclinical and research programs. Since 2002, we have been advancing these programs into later stages of development; discovering and developing additional drug candidates; and expanding our management and scientific teams and capabilities to support more advanced stages of drug development and commercialization.

Our principal executive offices are located at 45 Hartwell Avenue, Lexington, Massachusetts 02421, and our telephone number is (781) 274-8200. Our website address is *www.syntapharma.com*. The information contained on our website is not incorporated by reference into, and does not form any part of, this Annual Report on Form 10-K. We have included our website address as a factual reference and do not intend it to be an active link to our website. Our trademarks include Synta Pharmaceuticals, our corporate logo, SYMMETRY and the SYMMETRY logo. Other service marks, trademarks and trade names appearing in this Annual Report on Form 10-K are the property of their respective owners. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports, are available free of charge through the Investors section of our website as soon as reasonably practicable after such materials have been electronically filed with, or furnished to, the Securities and Exchange Commission.

Item 1A. RISK FACTORS

If any of the following risks occurs, our business, business prospects, financial condition, results of operations, or cash flows could be materially harmed.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred significant losses since our inception, and we expect to incur losses for the foreseeable future and may never reach profitability.

Since inception we have incurred significant operating losses and, as of December 31, 2008, we had an accumulated deficit of $392.7 million. We expect to continue to incur significant operating expenses and capital expenditures and anticipate that our expenses and losses may increase substantially in the foreseeable future as we:

- complete the previously announced restructuring;
- wind-down the suspended SYMMETRY trial;
- evaluate the data from the recently suspended Phase 3 SYMMETRY trial of elesclomol and determine in conjunction with our partner, GSK, whether to continue development of elesclomol or to terminate the development program;

- 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 earlier stage clinical trial results;

- complete preclinical development of our second generation Hsp90 inhibitor and initiate clinical trials of this compound, if supported by the preclinical data;

- complete preclinical development of STA-9584 and initiate clinical trials, if supported by positive preclinical data;

- complete the current Phase 2a clinical trial of apilimod for the treatment of rheumatoid arthritis, or RA, and possibly initiate additional Phase 2 clinical trials of apilimod in RA or other inflammatory disease indications;

- advance our CRACM inhibitor program into preclinical development and possibly into clinical trials, if supported by positive preclinical data and consistent with our obligations under our collaboration and license agreement, or the Roche Agreement, with Hoffmann-La Roche, or Roche;

- 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.

We must generate significant revenue to achieve and maintain profitability. Even if we succeed in developing and commercializing one or more of our drug candidates, we may not be able to generate sufficient revenue and we may never be able to achieve or maintain profitability.

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

We commenced operations in July 2001. Our operations to date have been limited to organizing and staffing our company, acquiring, developing, and securing our technology, and undertaking preclinical studies and clinical trials of our drug candidates. We have not yet demonstrated an ability to obtain regulatory approval, formulate and manufacture a commercial-scale product, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history or had previously discovered, developed, and/or commercialized an approved product.

If we fail to obtain the funding necessary to support our operations, we will be unable to successfully develop and commercialize our lead drug candidates.

Although we have raised substantial funding to date, we will require additional funding in order to complete clinical development and commercialize our current drug candidates and to conduct the research and development and clinical and regulatory activities necessary to bring any future drug candidates to market. Our future funding requirements will depend on many factors that are currently unknown to us, including:

- our determination, based on the ongoing analysis of the data from the recently suspended Phase 3 SYMMETRY trial, to continue the development of elesclomol or to terminate the development program;

- our ability to fulfill our obligations under and otherwise maintain the GSK Agreement and for GSK to satisfy its obligations under the GSK Agreement, including payment of funding obligations and milestone payments;

- the progress and results of our ongoing Phase 1 and Phase 1/2 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 results of our preclinical studies of STA-9584 and testing of our CRACM inhibitors, 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 progress and results of the current Phase 2a clinical trial of apilimod for the treatment of RA and any future clinical trials we may initiate for RA or other inflammatory disease indications;

- 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.

There can be no assurance that additional funds will be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available on a timely basis, 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.

Based on our current operating plans, we expect our existing funds, including the $16 million upfront license payment under the Roche Agreement that was received in January 2009 and the $10 million operational milestone payment under the GSK Agreement that was received in March 2009, together with research and development reimbursements and approximately $5 million of milestone payments anticipated in connection with certain preclinical and clinical achievements anticipated under the Roche agreement, will be sufficient to fund operations for approximately two years. While we believe that the milestone payments from Roche will be received as forecasted, we have contingency plans in place should the receipt of the milestone payments be delayed or not achieved at all or if clinical progress in our various programs does not progress as expected, which plans focus on the reduction of spending on less critical research and development activities.

However, our operating plans may change as a result of many factors currently unknown to us, and we may need additional funds sooner than planned. In addition, we may seek additional capital due to

favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Raising additional capital may cause dilution to existing stockholders, restrict our operations or require us to relinquish rights.

We may seek the additional capital necessary to fund our operations through public or private equity offerings, debt financings, and collaborative and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, existing stockholders' ownership interests will be diluted and the terms may include liquidation or other preferences that adversely affect their rights as a stockholder. Pursuant to the terms of the GSK Agreement, GSK may, subject to our agreement, purchase up to $45 million of our common stock in two separate tranches upon the future achievement of specified development and regulatory milestones related to the development of elesclomol. However, we have recently suspended all clinical development related to elesclomol, and we are in the process of determining, along with GSK, whether to continue the development of elesclomol or to terminate the development program. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions such as incurring additional debt, making capital expenditures, or declaring dividends. If we raise additional funds through collaboration and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or drug candidates, or grant licenses on terms that are not favorable to us.

Risks Related to the Development and Regulatory Approval of Our Drug Candidates

Suspension of the Phase 3 SYMMETRY trial of elesclomol could significantly affect our growth and our business prospects.

We have invested a significant portion of our time and financial resources in the development of elesclomol for the treatment of malignant melanoma and other cancer types. During 2008, we spent approximately $60.1 million on the development of elesclomol. In February 2009, we announced that we were suspending the SYMMETRY trial as well as all other ongoing studies of elesclomol following a meeting of the independent Data Monitoring Committee, or DMC. The DMC noted that while the primary endpoint of progression-free survival, or PFS, showed a trend that favored the elesclomol arm of the study; early analysis of the secondary endpoint of overall survival, or OS, favored the control arm. The DMC's report stated that the DMC "cannot be sure whether this is an adverse treatment effect, an effect of differing post-progression (off-study) treatments or a chance effect not relating to the study drugs at all." Based on these observations, the DMC recommended that unblinded data be released to us, and that we provide appropriate notification to investigators and patients.

We are currently evaluating, along with our collaboration partner, GSK, the data from the SYMMETRY trial in an effort to determine whether or not to continue with the development of elesclomol or to terminate the development program. There can be no assurances that we will continue the development of elesclomol, or if we do continue development, that elesclomol will prove effective in and be approved for treating melanoma or any other forms of cancer. Our inability to continue to develop elesclomol given the results of the SYMMETRY trial would affect our growth and impact various aspects of our business and our plans for the future.

Our success is largely dependent on the success of our current clinical-stage drug candidates, and we cannot be certain that we will be able to obtain regulatory approval for or successfully commercialize any of these drug candidates.

We anticipate that our success will depend largely on the receipt of regulatory approval and successful commercialization of our clinical-stage drug candidates, elesclomol, apilimod, STA-9090 and

STA-9584. In February 2009, we announced that we were suspending the development of elesclomol based on an analysis by the DMC of the data from our Phase 3 SYMMETRY trial. We are currently evaluating the data from this trial along with our collaboration partner GSK in an effort to determine whether to continue the development of elesclomol or to terminate the development program. The future success of our drug candidates will depend on several factors, including the following:

- our ability to provide acceptable evidence of their safety and efficacy;
- receipt of marketing approval from the FDA, and any similar foreign regulatory authorities;
- successful formulation of an efficacious and commercially viable form of apilimod;
- obtaining and maintaining commercial manufacturing arrangements with third-party manufacturers or establishing commercial-scale manufacturing capabilities;
- establishing an internal sales force or collaborating with pharmaceutical companies or contract sales organizations to market and sell any approved drug;
- approval or use of competitive products in the indications for which we will market our drug candidates;
- validation of the molecular targets or mechanisms of action of our drug candidates by us or by third parties;
- approval of reimbursement in foreign countries with centralized health care; and
- acceptance of any approved drug in the medical community and by patients and third-party payors.

Many of these factors are beyond our control. Accordingly, there can be no assurance that we will ever be able to generate revenues through the sale of an approved product or through strategic collaborations based on our products.

If we do not obtain the required regulatory approval, we will be unable to market and sell our drug candidates.

Elesclomol, apilimod, STA-9090, STA-9584, and any other drug candidates we may discover or acquire and seek to commercialize are subject to extensive governmental regulations relating to development, clinical trials, manufacturing, and commercialization. Rigorous preclinical testing and clinical trials and an extensive regulatory approval process are required to be successfully completed in the United States and in many foreign jurisdictions before a new drug can be sold. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain, and subject to unanticipated delays. The time required to obtain approval by the FDA is unpredictable but typically exceeds five years following the commencement of clinical trials, depending upon the complexity of the drug candidate. We initiated clinical development of elesclomol, apilimod and STA-9090 in 2002, 2003 and 2007, respectively, and thus far, these drug candidates have been studied in only a relatively small number of patients. The SYMMETRY trial, our global, pivotal Phase 3 clinical trial of elesclomol for the treatment of metastatic melanoma, met its enrollment target of 630 patients in February 2009. However, shortly after meeting this target, we announced that we were suspending the development of elesclomol. We are currently evaluating the data from this trial along with our collaboration partner, GSK, in an effort to determine whether to continue the development of elesclomol or to terminate the development program. Apilimod is currently in Phase 2a clinical trials for the treatment of RA. We initiated two Phase 1 clinical trials of STA-9090 in solid tumors and one Phase 1/2 trial of STA-9090 in hematologic cancers, with a Phase 2 trial in hematologic cancers to be initiated in the third quarter of 2009. STA-9584 is in preclinical development.

We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. In connection with the clinical trials of elesclomol, apilimod, STA-9090 and STA-9584 and any other drug candidate we may seek to develop in the future, we face risks that:

- the drug candidate may not prove to be efficacious;
- the dosing of the drug candidate in a particular clinical trial may not be at an optimal level (for example, we are uncertain whether the Phase 2 clinical trial results for elesclomol in sarcoma and non-small cell lung cancer and Phase 2 clinical trial results for apilimod in psoriasis and Crohn's disease were the result of suboptimal dosing amounts and/or dosing schedules);
- patients may die or suffer other adverse effects for reasons that may or may not be related to the drug candidate being tested;
- the results may not confirm the positive results of earlier clinical trials; and
- the results may not meet the level of statistical significance or clinical benefit-to-risk ratio required by the FDA or other regulatory agencies for marketing approval.

Of the large number of drugs in development, only a small percentage result in the submission of an NDA to the FDA and even fewer are approved for commercialization. Furthermore, even if we do receive regulatory approval to market a commercial product, any such approval may be subject to limitations on the indicated uses for which we may market the product.

Assuming that we decide to continue the development of elesclomol, if the current formulation and method of administering elesclomol is not commercially feasible, we may not be able to commercialize elesclomol without reformulation and conducting additional clinical trials.

Until the fourth quarter of 2008, except for a human bridging study utilizing the salt form of elesclomol, all of our clinical trials, including the Phase 3 SYMMETRY trial, were conducted using the free acid form of elesclomol. Because this free acid form of elesclomol is not water soluble, prior to administration, it must be dissolved in an organic solvent. In the completed Phase 2b clinical trial in metastatic melanoma, this was achieved by combining the elesclomol with a volume of organic solvent included in the paclitaxel solution and agitating the resulting mixture with a sonication machine. Once the elesclomol was fully dissolved, the resulting solution was added to the remaining paclitaxel solution, and the combined elesclomol/paclitaxel solution was administered to the patient. Prior to the SYMMETRY trial, we made certain improvements to the process for preparing the active pharmaceutical ingredient, or API, and drug product of elesclomol, such that elesclomol was dissolved in the paclitaxel solution without sonication. We believe these procedures replicated the results of the prior methods and were suitable for preparing drug product for clinical trials and commercialization. These procedures were used in our SYMMETRY trial. Among other aspects of the SYMMETRY trial, we are currently evaluating whether changes in the manufacturing process may have contributed to the difference in results of the Phase 3 SYMMETRY trial as compared to the Phase 2b clinical trial in metastatic melanoma.

In addition, in order to use the free acid form of elesclomol with other oncology products, including taxanes other than paclitaxel, it must be dissolved in an organic solvent, which may cause additional toxicity due to the presence of the organic solvent. Accordingly, if we determine to continue the development of elesclomol, the free acid form of elesclomol may not prove to be commercially feasible, in which case substantial time and effort will need to be devoted to the identification, testing (including clinical trials) and manufacturing of new elesclomol formulations. We have developed a water-soluble sodium salt form of elesclomol, or elesclomol sodium, that does not need to be dissolved in an organic solvent and therefore may be used more easily with other oncology products or potentially, as a stand alone agent without need for an organic solvent. However, development of this

form of elesclomol will require additional formulation development efforts and clinical studies. We can provide no guarantees that a commercially suitable elesclomol formulation will be feasible.

If we are unable to successfully reformulate STA-9090, it may limit the commercialize potential of this drug candidate, even if approved.

The current formulation and administration procedures for STA-9090 may be inconvenient or unacceptable to certain patients. These factors may lead to slower enrollment rates in our clinical trials and, if approved, may limit the commercial potential of STA-9090. In addition, to date, we have only produced STA-9090 drug product on a relatively small scale. The current STA-9090 drug product formulation may prove to be challenging to manufacture on a larger, commercial scale, which may add to the cost of manufacture or delay the approval of STA-9090. While we are currently working to reformulate this drug candidate to broaden its commercial potential, the physicochemical properties of STA-9090 may limit the flexibility in formulation development. Accordingly, if we are unable to develop a commercially acceptable formulation using our own know-how or technology, we may need to rely on third party proprietary formulation technology. Such third party formulation development may require significant time and expense. We cannot assure you that our efforts to reformulate STA-9090 will be successful. If we are unable to reformulate STA-9090 and develop a more convenient and acceptable procedure for administration, STA-9090 may have more limited potential target indications and market size.

While we believe that elesclomol's mechanism of action may have applicability to a broad range of solid tumor cancers, most of our clinical trials of elesclomol to date have shown negative or inconclusive results and there can be no assurances that we will continue the development of elesclomol.

Based on our understanding of the mechanism of action and the preclinical activity we have seen with elesclomol, we believe that elesclomol may have applicability to a broad range of solid tumor cancers. However, other than our Phase 2b clinical trial in metastatic melanoma, the results of our clinical trials of elesclomol have been negative or inconclusive. We have completed Phase 2 clinical trials of elesclomol in sarcoma and non-small cell lung cancer. The results of the soft tissue sarcoma clinical trial did not definitively establish evidence of clinical activity. In the non-small cell lung cancer clinical trial, no improvement was observed in time-to-progression between combination treatment with elesclomol and a standard first-line combination therapy. In addition, in February 2009, we announced that we were suspending the SYMMETRY trial, our global, pivotal Phase 3 clinical trial of elesclomol for the treatment of metastatic melanoma. Although we are currently analyzing data from these trials to assess the future development of elesclomol in melanoma and other cancer types, there can be no assurances that we will continue the development of elesclomol in these indications, or at all, or that elesclomol will prove effective in and be approved for treating these or other forms of cancer.

Because our drug candidates are in an early stage of development, there is a high risk of failure, and we may never succeed in developing marketable products or generating product revenue.

We have no drug candidates that have received regulatory approval for commercial sale. We do not expect to have any commercial products on the market in the foreseeable future, if at all. We are exploring human diseases at the cellular level and attempting to develop drug candidates that intervene with cellular processes. Drug development is an uncertain process that involves trial and error, and we may fail at numerous stages along the way. Success in preclinical studies of a drug candidate may not be predictive of similar results in humans during clinical trials, and successful results from early or small clinical trials of a drug candidate may not be replicated in later and larger clinical trials. For example, although preclinical data and Phase 2a clinical trial results suggested that apilimod had activity in psoriasis and Crohn's disease, our Phase 2b clinical trials of apilimod in those indications did not demonstrate clinical benefit. In addition, although our Phase 2b clinical trial of elesclomol for the

treatment of metastatic melanoma achieved the primary endpoint of increasing progression-free survival, or PFS, and there were no safety issues identified in this trial, we recently announced that we were suspending clinical development of elesclomol due to possible safety concerns identified by the DMC in the SYMMETRY trial, our global, pivotal Phase 3 trial for the treatment of metastatic melanoma. Accordingly, the results from preclinical studies and the completed and ongoing clinical trials for our drug candidates may not be predictive of the results we may obtain in later stage clinical trials.

If clinical trials for our drug candidates are prolonged, delayed or suspended, we may be unable to commercialize our drug candidates on a timely basis, which would require us to incur additional costs and delay our receipt of any revenue from potential product sales.

We cannot predict whether we will encounter problems with any of our completed, ongoing or planned clinical trials that will cause us or any regulatory authority to delay or suspend those clinical trials or delay the analysis of data derived from them. For example, in February 2009, we announced that we were suspending our Phase 3 SYMMETRY trial of elesclomol for the treatment of metastatic melanoma as well as all other ongoing studies of elesclomol. This decision to suspend the clinical development of elesclomol was based on the results of an interim analysis by the independent DMC of the SYMMETRY trial data. The DMC noted that while the primary endpoint of progression-free survival, or PFS, showed a trend that favored the elesclomol arm of the study; early analysis of the secondary endpoint of overall survival, or OS, favored the control arm. A number of events, including any of the following, could delay the completion of our other ongoing and planned clinical trials and negatively impact our ability to obtain regulatory approval for, and to market and sell, a particular drug candidate, including our other clinical drug candidates STA-9090 and apilimod:

- conditions imposed on us by the FDA or any foreign regulatory authority regarding the scope or design of our clinical trials;
- delays in obtaining, or our inability to obtain, required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in our clinical trials;
- insufficient supply or deficient quality of our drug candidates or other materials necessary to conduct our clinical trials;
- delays in obtaining regulatory agency agreement for the conduct of our clinical trials;
- lower than anticipated enrollment and retention rate of subjects in clinical trials;
- negative or inconclusive results from clinical trials, or results that are inconsistent with earlier results, that necessitate additional clinical studies (for example, due to patient-to-patient pharmacokinetic variability);
- serious and unexpected drug-related side effects experienced by patients in clinical trials; or
- failure of our third-party contractors to comply with regulatory requirements or otherwise meet their contractual obligations to us in a timely manner.

Commercialization of our drug candidates may be delayed by the imposition of additional conditions on our clinical trials by the FDA or the requirement of additional supportive studies by the FDA. In addition, clinical trials require sufficient patient enrollment, which is a function of many factors, including the size of the patient population, the nature of the trial protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant disease, the conduct of other clinical trials that compete for the same patients as our clinical trials, and the eligibility criteria for our clinical trials. Our failure to enroll patients in our clinical trials could delay the completion of the clinical trial beyond our expectations. In addition, the FDA could require us to conduct clinical trials with a larger number of subjects than we have projected for any of our drug candidates. We may not be able to enroll a sufficient number of patients in a timely or cost-effective manner. Furthermore, enrolled patients may drop out of our clinical trials, which could impair the validity or statistical significance of the clinical trials.

We do not know whether our clinical trials will begin as planned, will need to be restructured, or will be completed on schedule, if at all. Delays in our clinical trials will result in increased development costs for our drug candidates. In addition, if our clinical trials are delayed, our competitors may be able to bring products to market before we do and the commercial viability of our drug candidates could be limited.

Failure to comply with foreign regulatory requirements governing human clinical trials and marketing approval for drugs could prevent us from selling our drug candidates in foreign markets, which may adversely affect our operating results and financial condition.

The requirements governing the conduct of clinical trials, product licensing, pricing, and reimbursement for marketing our drug candidates outside the United States vary greatly from country to country and may require additional testing. If we determine to continue the development of elesclomol, under the GSK Agreement, GSK has exclusive responsibility to develop elesclomol outside the United States. W also expect that our future clinical development of apilimod, STA-9090 and other drug candidates will involve a number of clinical trials in foreign jurisdictions, particularly in Europe. We have no experience in obtaining foreign regulatory approvals. The time required to obtain approvals outside the United States may differ from that required to obtain FDA approval. We or GSK may not obtain foreign regulatory approvals on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other countries or by the FDA. Failure to comply with these regulatory requirements or obtain required approvals could impair our and GSK's ability to develop foreign markets for our drug candidates and may have a material adverse effect on our results of operations and financial condition.

Our drug candidates will remain subject to ongoing regulatory review even if they receive marketing approval, and if we fail to comply with continuing regulations, we could lose these approvals and the sale of any approved commercial products could be suspended.

Even if we receive regulatory approval to market a particular drug candidate, the manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion, and record keeping related to the product will remain subject to extensive regulatory requirements. If we fail to comply with the regulatory requirements of the FDA and other applicable domestic and foreign regulatory authorities or previously unknown problems with any approved commercial products, manufacturers, or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers, or manufacturing processes;
- untitled or warning letters;

- civil or criminal penalties;
- fines;
- injunctions;
- product seizures or detentions;
- import bans;
- voluntary or mandatory product recalls and related publicity requirements;
- suspension or withdrawal of regulatory approvals;
- total or partial suspension of production; and
- refusal to approve pending applications for marketing approval of new products or supplements to approved applications.

If side effects increase or are identified during the time our drug candidates are in development or after they are approved and on the market, we may be required to perform lengthy additional clinical trials, change the labeling of any such products, or withdraw any such products from the market, any of which would hinder or preclude our ability to generate revenues.

In our completed Phase 2b clinical trial of elesclomol for metastatic melanoma, there were four patients with possible or probable drug-related serious adverse events related to treatment with elesclomol. In addition, in February 2009, we announced that we were suspending our Phase 3 SYMMETRY trial of elesclomol for the treatment of metastatic melanoma as well as all other ongoing studies of elesclomol. This decision to suspend the clinical development of elesclomol was based on the results of an analysis by the DMC of the SYMMETRY trial data. The DMC noted that while the primary endpoint of progression-free survival, or PFS, showed a trend that favored the elesclomol arm of the study; early analysis of the secondary endpoint of overall survival, or OS, favored the control arm. We have also observed significant toxicities in preclinical animal studies of our clinical drug candidate, STA-9090. If significant toxicities occur at a clinical dose of STA-9090 which is not sufficiently efficacious, we may not be able to demonstrate an adequate therapeutic index to obtain regulatory approval for STA-9090. Furthermore, even if we are successful in obtaining regulatory approval for one or more of our drug candidates, as the drug is used in a larger patient population, if the incidence of side effects increases or if other effects are identified:

- regulatory authorities may withdraw their approvals;
- we may be required to reformulate any such products, conduct additional clinical trials, make changes in labeling of any such products, or implement changes to or obtain new approvals of our or our contractors' manufacturing facilities;
- we may experience a significant drop in the sales of the affected products;
- our reputation in the marketplace may suffer; and
- we may become the target of lawsuits, including class action suits.

Any of these events could harm or prevent sales of the affected products or could substantially increase the costs and expenses of commercializing and marketing any such products.

While we choose to test our drug candidates in specific clinical indications based in part on our understanding of their mechanisms of action, our understanding may be incorrect or incomplete and, therefore, our drugs may not be effective against the diseases tested in our clinical trials.

Our rationale for selecting the particular therapeutic indications for each of our drug candidates is based in part on our understanding of the mechanism of action of these drug candidates. However, our understanding of the drug candidate's mechanism of action may be incomplete or incorrect, or the mechanism may not be clinically relevant to the diseases treated. In such cases, our drug candidates may prove to be ineffective in the clinical trials for treating those diseases.

We deal with hazardous materials and must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our activities involve the controlled storage, use, and disposal of hazardous materials, including cytotoxic agents, genotoxic agents, infectious agents, corrosive, explosive and flammable chemicals, and various radioactive compounds. We are subject to federal, state, and local laws and regulations governing the use, manufacture, storage, handling, and disposal of these hazardous materials. Although we believe that our safety procedures for the handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials.

In the event of an accident, state or federal authorities may curtail our use of these materials, and we could be liable for any civil damages that result, which may exceed our financial resources and may seriously harm our business. We currently maintain insurance covering hazardous waste clean up costs in an amount of up to $250,000 per site. Because we believe that our laboratory and materials handling policies and practices sufficiently mitigate the likelihood of materials liability or third-party claims, we currently carry no insurance covering such claims. While we believe that the amount of insurance we carry is sufficient for typical risks regarding our handling of these materials, it may not be sufficient to cover pollution conditions or other extraordinary or unanticipated events. Additionally, an accident could damage, or force us to shut down, our operations.

Risks Related to Our Dependence on Third Parties

In 2007, we entered into an agreement with GSK relating to the development and commercialization of elesclomol. If this agreement is unsuccessful or terminated by GSK for any reason, our ability to commercialize elesclomol on a timely basis, or at all, could be affected and our business could be materially harmed.

On October 8, 2007, we entered into a Collaborative Development, Commercialization and License Agreement with GSK for the joint development and commercialization of elesclomol. We have a limited history of working together with GSK and cannot predict the success of this collaboration. The agreement involves a complex allocation of responsibilities, costs and benefits and provides for milestone payments to us upon the achievement of specified operational progress, positive clinical and regulatory outcomes and sales milestones.

With respect to responsibilities and control over decisions, we and GSK have established a series of joint committees which will be responsible for the development and commercialization of elesclomol. We have the right, but not the obligation to participate in these various joint governance committees. Under the committee structure, if the committees are unable to reach a decision, the matter is referred to senior executives of each of the parties. Each party has ultimate decision making authority with respect to a specified set of issues. For certain other specified issues, the matter must be resolved by consensus of the parties, and for all other issues, the matter must be resolved through arbitration. Accordingly, GSK's failure to devote sufficient financial and human resources to the development and commercialization of elesclomol or the failure of the parties to reach consensus on the conduct of

development or commercialization activities with respect to elesclomol may delay its clinical development, which could lead to the delay in payment of clinical and regulatory milestones under the collaboration agreement and may delay commercialization of elesclomol.

In addition, the agreement provides that GSK may terminate the agreement upon not less than three months' written notice at any time prior to the date of the first commercial sale of an elesclomol product and not less than six months' written notice at any time on and after such date. Should GSK elect to terminate the partnership, all rights to the elesclomol program would be returned to us and we would be free to develop elesclomol alone or with another partner. In such case, we would owe a small royalty to GSK on future sales of elesclomol. We are currently working with GSK to evaluate the data from the Phase 3 SYMMETRY trial to determine if we should continue the development of elesclomol or terminate the program. To date, GSK has not notified us of any intent to terminate the GSK Agreement. There can be no assurances that we will agree with GSK as to the future of the program and if we determine to continue the program and GSK determines otherwise, they may terminate the agreement.

Loss of GSK as a collaborator in the development and commercialization of elesclomol, any dispute over the terms of, or decisions regarding the agreement, including any disputes over the payment of milestone payments or funding obligations of GSK, or any other adverse developments in our relationship with GSK could result in our inability to fully develop and/or commercialize elesclomol, or at all, and could materially harm our business and could accelerate our need for additional capital.

In 2008, we entered into an agreement with Roche relating to the discovery, development and commercialization of our CRACM ion channel inhibitors. If this agreement is unsuccessful or terminated by Roche for any reason, our ability to develop and commercialize a CRACM inhibitor on a timely basis, or at all, could be affected and our business could be materially harmed.

On December 23, 2008, we entered into a Collaboration and Commercialization and License Agreement with Roche, or the Roche Agreement, for the discovery, development and commercialization of our small-molecule drugs targeting calcium release activated calcium modulator, or CRACM, ion channels expressed on immune cells. We do not have a history of working together with Roche and cannot predict the success of this collaboration. The agreement involves a complex allocation of responsibilities, costs and benefits and provides for milestone payments to us upon the achievement of specified achievements, positive clinical and regulatory outcomes and sales milestones.

With respect to responsibilities and control over decisions, we and Roche have established a series of joint committees which will be responsible for the development and commercialization of CRACM inhibitors. We have the right, but not the obligation to participate in these various joint governance committees. Under the committee structure, if the committees are unable to reach a decision, the matter is referred to senior executives of each of the parties. Each party has ultimate decision making authority with respect to a specified set of issues. For certain other specified issues, the matter must be resolved by consensus of the parties, and for all other issues, the matter must be resolved through arbitration.

The Roche Agreement provides for certain termination provisions, under which Roche is obligated to fund a minimum of $9 million in committed research support. Loss of Roche as a collaborator in the development or commercialization of a CRACM inhibitor, any dispute over the terms of, or decisions regarding the agreement, or any other adverse developments in our relationship with Roche could result in our inability to fully develop and/or commercialize a CRACM inhibitor, or at all, and could materially harm our business and could accelerate our need for additional capital. 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.

We rely on third parties to conduct our clinical trials and nonclinical safety assessment studies, and those third parties may not perform satisfactorily, including failing to meet established timelines for the completion of such clinical trials and studies.

We do not have the ability to independently conduct clinical trials and certain nonclinical safety assessment studies, particularly those studies conducted under Good Laboratory Practices, or GLP, for our drug candidates, and we rely on third parties such as contract research organizations, medical institutions, and clinical investigators in the case of clinical trials, and contract research organizations in the case of nonclinical safety assessment studies, to perform these functions. Our reliance on these third parties for clinical development activities reduces our control over these activities. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. To date, our contract research organizations and other similar entities with which we are working have performed well; however, if these third parties do not successfully carry out their contractual duties or meet expected timelines, we may be delayed in obtaining regulatory approvals for our drug candidates and may be delayed in our efforts to successfully commercialize our drug candidates for targeted diseases.

We have no manufacturing capacity and depend on third-party manufacturers to produce our clinical trial drug supplies.

We do not currently operate manufacturing facilities for clinical or commercial production of elesclomol, apilimod or STA-9090, or any of our preclinical drug candidates. We have limited experience in drug manufacturing, and we lack the resources and the capabilities to manufacture any of our drug candidates on a clinical or commercial scale. As a result, we currently rely on third-party manufacturers to supply, store, and distribute drug supplies for our clinical trials. Any performance failure on the part of our existing or future manufacturers could delay clinical development or regulatory approval of our drug candidates or commercialization of any approved products, producing additional losses and depriving us of potential product revenue.

Our drug candidates require precise, high quality manufacturing. Failure by our contract manufacturers to achieve and maintain high manufacturing standards could result in patient injury or death, product recalls or withdrawals, delays or failures in testing or delivery, cost overruns, or other problems that could seriously hurt our business. Contract manufacturers may encounter difficulties involving production yields, quality control, and quality assurance. These manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state and foreign agencies to ensure strict compliance with current Good Manufacturing Practice, or cGMP, and other applicable government regulations and corresponding foreign standards. We provide direct oversight of our contract manufacturing organizations for supply of all clinical drug materials and have put quality agreements in place that we believe are appropriate for our materials. However, we do not have direct control over third party manufacturers' compliance with these regulations and standards and therefore, cannot provide assurance regarding such compliance.

If for some reason our contract manufacturers cannot perform as agreed, we may be unable to replace such third-party manufacturers in a timely manner and the production of our drug candidates would be interrupted, resulting in delays in clinical trials and additional costs. Switching manufacturers may be difficult because the number of potential manufacturers is limited and the FDA must approve any replacement manufacturer prior to manufacturing our drug candidates. Such approval would require new testing and compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our drug candidates after receipt of FDA approval. It may be difficult or impossible for us to find a replacement manufacturer on acceptable terms quickly, or at all.

We use a single manufacturer for the supply of elesclomol powder- filled vials for clinical trials and potentially, for commercial supply, and the failure of this manufacturer to supply sufficient quantities of elesclomol powder-filled vials could have a material adverse effect on our business.

We used a single manufacturer for the supply of elesclomol powder-filled vials for the SYMMETRY trial. This process involves highly specialized processing, including the automated filling of vials with elesclomol. We believe that this manufacturer may be one of a limited number of third-party contract manufacturers currently capable of conducting this process on our behalf, and we entered into a clinical supply agreement and a quality agreement with this manufacturer. If we determine to continue the development of elesclomol, any performance failure on the part of this manufacturer, could delay clinical development, regulatory approval or commercialization of elesclomol, which could have a material adverse effect on our business. Moreover, although we believe we have identified a suitable backup manufacturer for elesclomol powder-filled vials, neither GSK nor we have an agreement with this manufacturer for producing this product and there can be no assurance that we will be able to enter into such an agreement on favorable terms, if at all.

We anticipate continued reliance on third-party manufacturers if we are successful in obtaining marketing approval from the FDA and other regulatory agencies for any of our drug candidates.

To date, our drug candidates have been manufactured in relatively small quantities for preclinical testing and clinical trials by third-party manufacturers. If the FDA or other regulatory agencies approve any of our drug candidates for commercial sale, we expect that we would continue to rely, at least initially, on third-party manufacturers to produce commercial quantities of our approved drug candidates. These manufacturers may not be able to successfully increase the manufacturing capacity for any of our approved drug candidates in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA or other regulatory authorities must review and approve. If they are unable to successfully increase the manufacturing capacity for a drug candidate, particularly elesclomol, or we are unable to establish our own manufacturing capabilities, the commercial launch of any approved products may be delayed or there may be a shortage in supply.

If we do not establish additional collaborations, we may have to alter our development plans.

Our drug development programs and potential commercialization of our drug candidates will require substantial additional cash to fund expenses. Although we have established a collaboration with GSK relating to the joint development and commercialization of elesclomol and a collaboration with Roche relating to the discover, development, manufacturing and commercialization of CRACM inhibitors, our strategy also includes potentially selectively collaborating with leading pharmaceutical and biotechnology companies to assist us in furthering development and potential commercialization of some of our other drug candidates and research programs. We may enter into one or more of such collaborations in the future, especially for target indications in which the potential collaborator has particular therapeutic expertise or that involve a large, primary care market that must be served by large sales and marketing organizations or for markets outside of North America. We face significant competition in seeking appropriate collaborators and these collaborations are complex and time-consuming to negotiate and document. We may not be able to negotiate collaborations on acceptable terms, or at all. If that were to occur, we may have to curtail the development of a particular drug candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of our sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be

available to us on acceptable terms, or at all. If we do not have sufficient funds, we will not be able to bring our drug candidates to market and generate product revenue.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our drug candidates, we may be unable to generate product revenue.

Although we have entered into a collaborative development, commercialization and license agreement with GSK for elesclomol, we do not currently have robust organization for the sales, marketing, and distribution of pharmaceutical products. If we determine to continue the development of elesclomol, in order to co-commercialize elesclomol in the United States under our arrangement with GSK or market any other products that may be approved by the FDA, we must build our sales, marketing, managerial, and other non-technical capabilities or make arrangements with third parties to perform these services. If we are unable to establish adequate sales, marketing, and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and we may not become profitable.

Risks Related to Our Intellectual Property

If our patent position does not adequately protect our drug candidates or any future products, others could compete against us more directly, which would harm our business.

Our success depends in part on our ability to obtain and maintain proprietary protection for our drug candidates, technology, and know-how, to operate without infringing on the proprietary rights of others, and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing U.S. and foreign patent applications related to our proprietary technology, inventions, and improvements that are important to the development of our business. We also rely on trade secrets, know-how, continuing technological innovation, and in-licensing opportunities to develop and maintain our proprietary position.

As of March 20, 2009, our patent portfolio had a total of 710 patents and patent applications worldwide, including specific patent filings with claims to the composition-of-matter and methods of use of elesclomol and apilimod. We own or have exclusively licensed a total of 30 issued U.S. patents and 97 U.S. patent applications, as well as 583 foreign counterparts to these patents and patent applications. With respect to elesclomol, we have two issued U.S. patents that claim the chemical structure of elesclomol that expire no earlier than 2022. Both of these issued U.S. patents also claim related chemical structures, pharmaceutical compositions, and methods for treating a subject with cancer. In addition, we have an issued U.S. patent claiming the salt form of elesclomol that expires no earlier than 2025. We have also filed several U.S. patent applications that have the potential to extend the patent life of elesclomol, including U.S. patent applications claiming aspects of the treatment regimen for metastatic melanoma which, if issued, would expire no earlier than 2026.

With respect to apilimod, we have two issued U.S. patents that claim the chemical structure of apilimod and methods for treating specific disorders using apilimod, respectively. These patents expire no earlier than 2021.

We have pending U.S. patent applications covering compositions-of-matter, methods of treatment and other aspects of our STA-9090, 2nd generation Hsp90 inhibitors, 2nd generation IL-12/23 inhibitors, STA-9584 and our CRACM ion channel program.. The patent term of our U.S. patents may potentially be extended under applicable law or regulations, such as the Patent Term Restoration Act. Counterpart filings to these patents and patent applications have been made in a number of other jurisdictions, including Europe and Japan.

We have also in-licensed various technologies to complement our ongoing clinical and research programs. These licenses generally extend for the term of the related patent and contain customary

royalty, termination, and other provisions. We have license agreements with Beth Israel Deaconess Medical Center and The Queen's Medical Center, Inc. that provide us with the exclusive commercial right to certain patent filings made by Beth Israel and Queen's Medical in the field of ion channels. We do not believe that these license agreements are currently material to our business We also have a non-exclusive license to a U.S. patent assigned to Columbia University that could potentially cover a possible aspect of the elesclomol mechanism. This license is not royalty bearing unless we include specific mechanism language on the label of any approved product, in which case a nominal royalty would be owed.

Our commercial success will depend in part on our ability to obtain additional patents and protect our existing patent position as well as our ability to maintain adequate protection of other intellectual property for our technologies, drug candidates, and any future products in the United States and other countries. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability. The laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems in protecting our proprietary rights in these countries.

The patent positions of biotechnology and pharmaceutical companies, including our patent position, involve complex legal and factual questions, and, therefore, validity and enforceability cannot be predicted with certainty. Patents may be challenged, deemed unenforceable, invalidated, or circumvented. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies, drug candidates, and any future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

In addition, although we do not believe that any of the patents or patent applications that we currently license are material to our business, we may in the future license intellectual property that is material to us. In such cases, we may be dependent upon the licensors to obtain, maintain and enforce patent protection for the licensed intellectual property. These licensors may not successfully prosecute patent applications or may fail to maintain issued patents. The licensors may also determine not to pursue litigation against other companies that infringe the patents, or may pursue such litigation less aggressively than we would. If any of the foregoing occurs, and the terms of any such future license do not allow us to assume control of patent prosecution, maintenance and enforcement, any competitive advantage we may have due to the license may be diminished or eliminated.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- we or our licensors were the first to make the inventions covered by each of our pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our or our licensors' pending patent applications will result in issued patents;
- any of our or our licensors' patents will be valid or enforceable;
- any patents issued to us or our licensors and collaborators will provide a basis for commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies or drug candidates that are patentable; or
- the patents of others will not have an adverse effect on our business.

Although third parties may challenge our rights to, or the scope or validity of our patents, to date we have not received any communications from third parties challenging our patents or patent applications covering our drug candidates.

We typically file for patent protection first on the composition-of-matter of our drug candidates and also claim their activities and methods for their production and use to the extent known at that time. As we learn more about the mechanisms of action and new methods of manufacture and use of these drug candidates, we generally file additional patent applications for these new inventions. Although our patents may prevent others from making, using, or selling similar products, they do not ensure that we will not infringe the patent rights of third parties. For example, because we sometimes identify the mechanism of action or molecular target of a given drug candidate after identifying its composition-of-matter and therapeutic use, we may not be aware until the mechanism or target is further elucidated that a third party has an issued or pending patent claiming biological activities or targets that may cover our drug candidate. If such a patent exists or is granted in the future, we cannot provide assurances that a license will be available on commercially reasonable terms, or at all.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers, and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

Litigation or other proceedings or third-party claims of intellectual property infringement would require us to spend time and money and could prevent us from developing or commercializing our drug candidates.

Our commercial success will depend in part on not infringing upon the patents and proprietary rights of other parties and enforcing our own patents and proprietary rights against others. Certain of our research and development programs are in highly competitive fields in which numerous third parties have issued patents and patent applications with claims closely related to the subject matter of our programs. We are not currently aware of any litigation or other proceedings or claims by third parties that our drug candidates, technologies or methods infringe their intellectual property.

However, while it is our practice to conduct freedom to operate searches and analyses, we cannot guarantee that we have identified every patent or patent application that may be relevant to the research, development or commercialization of our drug candidates. In the case of patent applications, we assess the likelihood of claims in pending, third party patent applications being allowed which may interfere with our freedom to operate relative to our drug candidates. We cannot provide assurances that our assessments in this regard will be correct and that patent claims covering our drug candidates that were assessed a low likelihood of issuance by us will not issue to a third party in the future. Moreover, there can be no assurance that third parties will not assert against us patents that we believe are not infringed by us or are invalid. For example, we are aware of a U.S. patent and a related European patent that claim generic chemical structures, pharmaceutical formulations and methods of treatment relating to compounds similar to STA-9090 and a U.S. patent that claims methods of treating certain cancers using heat shock protein 90, or Hsp90, inhibitors. The claims of these patents may be relevant to the commercialization of our drug candidate, STA-9090. However, based on our analysis of these patents, we do not believe that the manufacture, use, importation or sale of STA-9090 would

infringe any valid claim of these patents. However, we cannot guarantee that these patents would not be asserted against us and, if asserted, that a court would find these patents to be invalid or not infringed.

In the event of a successful infringement action against us with respect to any third party patent rights, we may be required to:

- pay substantial damages;
- stop developing, commercializing, and selling the infringing drug candidates or approved products;
- stop utilizing the infringing technologies and methods in our drug candidates or approved products;
- develop non-infringing products, technologies, and methods; and
- obtain one or more licenses from other parties, which could result in our paying substantial royalties or our granting of cross licenses to our technologies.

We may not be able to obtain licenses from other parties at a reasonable cost, or at all. If we are not able to obtain necessary licenses at a reasonable cost, or at all, we could encounter substantial delays in product introductions while we attempt to develop alternative technologies, methods, and products, which we may not be able to accomplish.

We may be subject to claims that we have wrongfully hired an employee from a competitor or that we or our employees have wrongfully used or disclosed alleged confidential information or trade secrets of their former employers.

As is commonplace in our industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we have previously been subject to a claim by an alleged competitor that a prospective employee we sought to hire was bound by an ongoing non-competition obligation which prevented us from hiring this employee. We may be subject in the future to claims that our employees or prospective employees are subject to a continuing obligation to their former employers (such as non-competition or non-solicitation obligations) or claims that our employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to the Commercialization of Our Drug Candidates

If physicians and patients do not accept our future products or if the markets for indications for which any drug candidate is approved is smaller than expected, we may be unable to generate significant revenue, if any.

Even if any of our current drug candidates or any other drug candidates we may develop or acquire in the future obtain regulatory approval, they may not gain market acceptance among physicians, healthcare payors, patients, and the medical community. Physicians may elect not to recommend these drugs for a variety of reasons including:

- timing of market introduction of competitive products;
- demonstration of clinical safety and efficacy compared to other products;
- cost-effectiveness;

- availability of reimbursement from managed care plans and other third- party payors;
- convenience and ease of administration;
- prevalence and severity of adverse side effects;
- other potential advantages of alternative treatment methods; and
- ineffective marketing and distribution support of our products.

If any approved drugs fail to achieve market acceptance, we may not be able to generate significant revenue and our business would suffer.

If the government and third-party payors fail to provide adequate coverage and reimbursement rates for our future products, if any, our revenue and prospects for profitability will be harmed.

In both domestic and foreign markets, our sales of any future products will depend in part upon the availability of reimbursement from third-party payors. Such third-party payors include government health programs such as Medicare, managed care providers, private health insurers, and other organizations. These third-party payors are increasingly attempting to contain healthcare costs by demanding price discounts or rebates and limiting both coverage and the amounts that they will pay for new drugs, and, as a result, they may not cover or provide adequate payment for our drugs. We might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future products to such payors' satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Our future products might not ultimately be considered cost-effective. Adequate third-party reimbursement might not be available to enable us to maintain price levels sufficient to realize an appropriate return on investment in product development.

U.S. and foreign governments continue to propose and pass legislation designed to reduce the cost of healthcare. For example, in some foreign markets, the government controls the pricing and profitability of prescription pharmaceuticals. In the United States, we expect that there will continue to be federal and state proposals to implement similar governmental controls. In addition, recent changes in the Medicare program and increasing emphasis on managed care in the United States will continue to put pressure on pharmaceutical product pricing. Cost control initiatives could decrease the price that we would receive for any products in the future, which would limit our revenue and profitability. Accordingly, legislation and regulations affecting the pricing of pharmaceuticals might change before our drug candidates are approved for marketing. Adoption of such legislation could further limit reimbursement for pharmaceuticals.

For example, the Medicare Prescription Drug Improvement and Modernization Act of 2003, or MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and disabled and introduced new reimbursement methodologies, based on average sales prices for drugs that are administered in an in-patient setting or by physicians, such as elesclomol, if approved. In addition, this legislation provides authority for limiting the number of drugs that will be covered in any therapeutic class. Although we do not know what the full impact of the new reimbursement methodologies will have on the prices of new drugs, we expect that there will be added pressure to contain and reduce costs. These cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products and could seriously harm our business. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates, and any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, we could be forced to pay substantial damage awards.

The use of any of our drug candidates in clinical trials, and the sale of any approved products, might expose us to product liability claims. For example, we may face product liability claims by patients treated with elesclomol, whether or not elesclomol harmed the patients in any way. We currently maintain product liability insurance, and we monitor the amount of coverage we maintain as the size and design of our clinical trials evolve and adjust the amount of coverage we maintain accordingly. However, there can be no assurance that such insurance coverage will fully protect us against some or all of the claims to which we might become subject. We might not be able to maintain adequate insurance coverage at a reasonable cost or in sufficient amounts or scope to protect us against potential losses. In the event a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as uncovered damages awards resulting from a claim brought successfully against us. Furthermore, whether or not we are ultimately successful in defending any such claims, we might be required to direct financial and managerial resources to such defense and adverse publicity could result, all of which could harm our business.

If we inadvertently violate the guidelines pertaining to promotion and advertising of our clinical candidates or approved products, we may be subject to disciplinary action by the FDA's Division of Drug Marketing, Advertising, and Communications or other regulatory bodies.

The FDA's Division of Drug Marketing, Advertising, and Communications, or DDMAC, is responsible for reviewing prescription drug advertising and promotional labeling to ensure that the information contained in these materials is not false or misleading. There are specific disclosure requirements and the applicable regulations mandate that advertisements cannot be false or misleading or omit material facts about the product. Prescription drug promotional materials must present a fair balance between the drug's effectiveness and the risks associated with its use. Most warning letters from DDMAC cite inadequate disclosure of risk information.

DDMAC prioritizes its actions based on the degree of risk to the public health, and often focuses on newly introduced drugs and those associated with significant health risks. There are two types of letters that DDMAC typically sends to companies which violate its drug advertising and promotional guidelines: notice of violation letters, or untitled letters, and warning letters. In the case of an untitled letter, DDMAC typically alerts the drug company of the violation and issues a directive to refrain from future violations, but does not typically demand other corrective action. A warning letter is typically issued in cases that are more serious or where the company is a repeat offender. Although we have not received any such letters from DDMAC, we may inadvertently violate DDMAC's guidelines in the future and be subject to a DDMAC untitled letter or warning letter, which may have a negative impact on our business.

Risks Related to Our Industry

We may not be able to keep up with the rapid technological change in the biotechnology and pharmaceutical industries, which could make any future approved products obsolete and reduce our revenue.

Biotechnology and related pharmaceutical technologies have undergone and continue to be subject to rapid and significant change. Our future will depend in large part on our ability to maintain a competitive position with respect to these technologies. Our competitors may render our technologies obsolete by advances in existing technological approaches or the development of new or different approaches, potentially eliminating the advantages in our drug discovery process that we believe we derive from our research approach and proprietary technologies. In addition, any future products that we develop, including our clinical drug candidates, may become obsolete before we recover expenses

incurred in developing those products, which may require that we raise additional funds to continue our operations.

Our market is subject to intense competition. If we are unable to compete effectively, our drug candidates may be rendered noncompetitive or obsolete.

We are engaged in segments of the pharmaceutical industry that are highly competitive and rapidly changing. Many large pharmaceutical and biotechnology companies, academic institutions, governmental agencies, and other public and private research organizations are pursuing the development of novel drugs that target cancer and chronic inflammatory diseases. We face, and expect to continue to face, intense and increasing competition as new products enter the market and advanced technologies become available. In addition to currently approved drugs, there are a significant number of drugs that are currently under development and may become available in the future for the treatment of cancer and chronic inflammatory diseases. We would expect our drug candidates to compete with marketed drugs and potentially with drug candidates currently under development. Many of our competitors have:

- significantly greater financial, technical and human resources than we have and may be better equipped to discover, develop, manufacture and commercialize drug candidates;
- more extensive experience in preclinical testing and clinical trials, obtaining regulatory approvals and manufacturing and marketing pharmaceutical products;
- drug candidates that have been approved or are in late-stage clinical development; and/or
- collaborative arrangements in our target markets with leading companies and research institutions.

Competitive products may render our products obsolete or noncompetitive before we can recover the expenses of developing and commercializing our drug candidates. Furthermore, the development of new treatment methods and/or the widespread adoption or increased utilization of any vaccine for the diseases we are targeting could render our drug candidates noncompetitive, obsolete or uneconomical. If we successfully develop and obtain approval for our drug candidates, we will face competition based on the safety and effectiveness of our drug candidates, the timing of their entry into the market in relation to competitive products in development, the availability and cost of supply, marketing and sales capabilities, reimbursement coverage, price, patent position and other factors. If we successfully develop drug candidates but those drug candidates do not achieve and maintain market acceptance, our business will not be successful.

In particular, we believe that our products face the following sources of significant competition:

Elesclomol. If approved for the treatment of metastatic melanoma, elesclomol may compete with:

- Drugs that are approved by the FDA for the treatment of metastatic melanoma. Currently, in the United States, there are only two drugs approved for the treatment of metastatic melanoma: dacarbazine/DTIC and the injectable protein IL-2. In addition, interferon alfa-2b, also an injectable protein, is the only drug approved for use as an adjuvant to surgery to prevent relapse of melanoma.
- Drugs that are not approved for the treatment of metastatic melanoma, but are used off-label either alone or in combination to treat the disease, including taxanes, temozolomide, vincristine, carmustine, melphalan, and platinum chemotherapeutics, such as cisplatin and carboplatin.

- Compounds in development for metastatic melanoma. Compounds in clinical development may be grouped into six categories: (1) the kinase inhibitors such as Nexavar, being developed by Bayer and Onyx; and Sutent, being developed by Pfizer; (2) the anti-CTLA-4 monoclonal antibodies, ipilimumab and tremelumimab; (3) the anti-bcl2 antisense oligonucleotide oblimersen sodium; (4) injectable angiogenesis inhibitors, such as Avastin; (5) cancer vaccines such as M-Vax and MDX-1379; and (6) derivatives, analogs, or reformulations of known chemotherapies, such as Abraxane, or other chemotherapies.

Apilimod. If approved, apilimod is expected to compete against the currently approved therapies for the treatment of chronic inflammatory diseases, including:

- large-molecule, injectable TNF-antagonists, including: Remicade, marketed by Johnson & Johnson; Enbrel, marketed by Amgen and Wyeth Pharmaceuticals; and Humira, marketed by Abbott Laboratories; and

- broadly immunosuppressive small molecule agents including corticosteroids and azathioprine.

Apilimod may also compete with CNTO-1275 currently awaiting approval and ABT-874 currently in a Phase 3 trial for psoriasis, two injectable antibody-based clinical candidates targeting IL-12 that are being developed by Johnson & Johnson and Abbott Laboratories, respectively. We expect that as an oral, small molecule drug, apilimod may prove competitive relative to current and future biologic therapies in manufacturing costs and convenience of administration. We are not aware of any orally administered, selective inhibitors of IL-12 production in clinical trials. Other novel, oral agents in development for inflammatory diseases represent potential competition to apilimod. These include chemokine inhibitors, oral fumarates, and calcineurin inhibitors.

STA-9090. If approved, STA-9090 may compete against the currently approved therapies for the treatment of cancers and other cancer treatments currently under development. In particular, STA-9090 may compete with other agents that inhibit Hsp90, including Hsp90 inhibitors from Infinity Pharmaceuticals, BMS/Kosan, BiogenIdec, Novartis/Vernalis, Pfizer, Kyowa Hakko, and Astex.

STA-9584. If approved, STA-9584 may compete with the currently approved therapies for the treatment of cancers, and other cancer treatments currently under development, including other vascular disrupting agents, such as ABT-751, being developed by Abbott Laboratories; ASA404, being developed by Novartis/Antisoma; CA4P, being developed by Oxigene; and AVE8062 being developed by Sanofi-Aventis.

CRACM Ion Channel Inhibitors. If approved, CRACM inhibitors may compete with the currently approved therapies for the treatment of inflammatory diseases, and other anti-inflammatory treatments currently under development, including other CRACM inhibitors, oral inhibitors of other targets, and biologics approaches.

Many of our potential competitors have substantially greater financial, technical, and personnel resources than us. In addition, many of these competitors have significantly greater commercial infrastructures. Our ability to compete successfully will depend largely on our ability to leverage our experience in drug discovery, development and commercialization to:

- discover and develop medicines that are superior to other products in the market;

- attract high-quality scientific, product development, and commercial personnel;

- obtain patent and/or proprietary protection for our medicines and technologies;

- obtain required regulatory approvals;

- selectively commercialize certain drug candidates in indications treated by specialist physicians; and
- selectively partner with pharmaceutical companies in the development and commercialization of certain drug candidates.

Risks Related to Employee Matters and Managing Growth

Depending upon the final determination with respect to the continued development of elesclomol, we may be forced to significantly reduce our current workforce. Furthermore, we may be unsuccessful in retaining certain key personnel.

Following the suspension of the SYMMETRY trial, on March 13, 2009, we announced a workforce reduction of approximately 90 positions, to a total of approximately 130 positions, allowing us to operate with current cash reserves for approximately two more years without the need for additional equity financing. If future circumstances dictate we may need to further reduce our current workforce. Accordingly, as a result of such reductions in force, we may be required to continue our ongoing development efforts with a shortage of resources. In addition, the competition for qualified personnel in the biotechnology field is intense and we must retain and motivate highly qualified scientific personnel. Notwithstanding the reduction in force, we will remain highly dependent on certain officers and employees, including Safi R. Bahcall, Ph.D., our President and Chief Executive Officer, and certain principal members of our executive and scientific teams. All of the agreements with these principal members of our executive and scientific teams provide that employment is at-will and may be terminated by the employee at any time and without notice. Although we currently do not have any reason to believe that we may lose the services of any of these persons in the foreseeable future, the developments in the elesclomol program and the recent reduction in force may cause certain officers and employees to seek employment elsewhere. The loss of the services of any of these persons might impede the achievement of our research, development, and commercialization objectives. Recruiting and retaining qualified scientific personnel and possibly sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific personnel from universities and research institutions. We do not maintain "key person" insurance on any of our employees. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

If we make strategic acquisitions, we will incur a variety of costs and might never realize the anticipated benefits.

All of our acquisitions to date have been of related parties. Accordingly, we have very limited experience in independently identifying acquisition candidates and integrating the operations of truly independent acquisition candidates with our company. Currently we are not a party to any acquisition agreements, nor do we have any understanding or commitment with respect to any such acquisition. If appropriate opportunities become available, however, we might attempt to acquire approved products, additional drug candidates, or businesses that we believe are a strategic fit with our business. If we pursue any transaction of that sort, the process of negotiating the acquisition and integrating an acquired product, drug candidate, or business might result in operating difficulties and expenditures and might require significant management attention that would otherwise be available for ongoing development of our business, whether or not any such transaction is ever consummated. Moreover, we might never realize the anticipated benefits of any acquisition. Future acquisitions could result in

potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities, or impairment expenses related to goodwill, and impairment or amortization expenses related to other intangible assets, which could harm our financial condition.

Risks Related to Our Common Stock

Our stock price has been and is likely to continue to be volatile and the market price of our common stock may drop.

Prior to our February 2007 initial public offering, there was not a public market for our common stock. There is a limited history on which to gauge the volatility of our stock price; however, since our common stock began trading on The NASDAQ Global Market on February 6, 2007 through December 31, 2008, our stock price has fluctuated from a low of $4.29 to a high of $11.25. In addition, between February 27, 2009 (the trading day immediately following the announcement of the suspension of our elesclomol development program) and March 20, 2009, our stock price has been as low as $1.20. Furthermore, the stock market has recently experienced significant volatility, particularly with respect to pharmaceutical, biotechnology, and other life sciences company stocks. The volatility of pharmaceutical, biotechnology, and other life sciences company stocks often does not relate to the operating performance of the companies represented by the stock. Some of the factors that may cause the market price of our common stock to fluctuate include:

- our determination, based on the ongoing analysis of the data from the recently suspended Phase 3 SYMMETRY trial, to continue the development of elesclomol or to terminate the development program;
- results of our current Phase 2a trial of apilimod in RA or any future clinical trials of apilimod we may initiate;
- results of our current Phase 1 and Phase 1/2 clinical trials of STA-9090, and results from any other future clinical trials of STA-9090;
- results of clinical trials conducted by others on drugs that would compete with our drug candidates;
- failure or delays in advancing STA-9584 or our CRACM ion channel inhibitor program, or other drug candidates we may discover or acquire in the future, into clinical trials;
- failure or discontinuation of any of our research programs;
- developments relating to GSK, Roche, the GSK Agreement, the Roche Agreement or any future collaborations we may enter into, including any disputes or disagreements between us and our collaborators relating to the agreements and the terms thereof;
- issues in manufacturing our drug candidates or approved products;
- regulatory developments or enforcement in the United States and foreign countries;
- developments or disputes concerning patents or other proprietary rights;
- introduction of technological innovations or new commercial products by us or our competitors;
- failure to secure adequate capital to fund our operations, or the issuance of equity securities at prices below fair market price;
- changes in estimates or recommendations by securities analysts, if any cover our common stock;

- public concern over our drug candidates or any approved products;
- litigation;
- future sales of our common stock;
- general market conditions;
- changes in the structure of healthcare payment systems;
- failure of any of our drug candidates, if approved, to achieve commercial success;
- economic and other external factors or other disasters or crises;
- period-to-period fluctuations in our financial results; and
- overall fluctuations in U.S. equity markets.

These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management.

If the market price of our common stock decreases, we may not be able to maintain our listing on the NASDAQ Global Market.

Our common stock is listed on the NASDAQ Global Market, and we are subject to a number of continued listing requirements, including that we maintain a market value of our common stock of at least $50 million. Accordingly, if the market value of our common stock is below $50 million for a period of 10 consecutive business days, we would receive a notice of delisting from NASDAQ and would have a period of 90 calendar days from such notification to regain compliance. To regain compliance, the market value of our common stock would need to be at least $50 million for 10 consecutive business days during the 90 day compliance period. Based on the number of shares of our common stock currently outstanding of 33,919,584 shares, we need to maintain a closing bid price of at least approximately $1.48 to maintain a market value of our common stock of at least $50 million. Between February 27, 2009 (the trading day immediately following the announcement of the suspension of our elesclomol development program) and the date we filed this Form 10-K, our stock price has been as low as $1.20, although the market value of our common stock only fell below $50 million for one day during this period. If, however, the price of our common stock decreased and we were to fall out of compliance with the continued listing criteria for the NASDAQ Global Market and could not regain compliance, we would be eligible to switch to the NASDAQ Capital Market if we met the continued listing requirements of that market, which includes a market value of our common stock of at least $35 million. If our common stock were to be delisted by NASDAQ, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- a reduced amount of news and analyst coverage for us;
- a decreased ability to issue additional securities or obtain additional financing in the future; and
- reduced liquidity for our stockholders.

Insiders have substantial control over us which could delay or prevent a change in corporate control or result in the entrenchment of management and/or the board of directors.

Our directors, executive officers and principal stockholders, together with their affiliates and related persons, beneficially own, in the aggregate, approximately 48% of our outstanding common stock. These stockholders, if acting together, may have the ability to determine the outcome of matters submitted to our stockholders for approval, including the election and removal of directors and any merger, consolidation, or sale of all or substantially all of our assets. In addition, these persons, acting together, may have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership may harm the market price of our common stock by:

- delaying, deferring, or preventing a change in control;
- entrenching our management and/or the board of directors;
- impeding a merger, consolidation, takeover, or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

Provisions of our charter, bylaws, and Delaware law may make an acquisition of us or a change in our management more difficult.

Certain provisions of our restated certificate of incorporation and restated bylaws could discourage, delay, or prevent a merger, acquisition, or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions also could limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so. Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions:

- allow the authorized number of directors to be changed only by resolution of our board of directors;
- establish a classified board of directors, providing that not all members of the board of directors be elected at one time;
- authorize our board of directors to issue without stockholder approval blank check preferred stock that, if issued, could operate as a "poison pill" to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit stockholder action by written consent;
- establish advance notice requirements for stockholder nominations to our board of directors or for stockholder proposals that can be acted on at stockholder meetings;
- limit who may call stockholder meetings; and
- require the approval of the holders of 80% of the outstanding shares of our capital stock entitled to vote in order to amend certain provisions of our restated certificate of incorporation and restated bylaws.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a prescribed period of time.

We do not anticipate paying cash dividends, and accordingly, our stockholders must rely on stock appreciation for any return on their investment.

We currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be the sole source of gain on an investment in our common stock for the foreseeable future.

Item 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

Item 2. PROPERTIES

Our operations are based primarily in Lexington, Massachusetts, which is located approximately 10 miles west of Boston, Massachusetts. We currently lease a total of 106,800 square feet of office and laboratory space, including 91,800 square feet in Lexington and 15,000 square feet in the neighboring town of Bedford, Massachusetts. We lease the following properties:

Location	Approximate Square Feet	Use	Lease Expiration Date
45 Hartwell Avenue Lexington, Massachusetts	34,520	Office and Laboratory	November 2011
91 Hartwell Avenue Lexington, Massachusetts	30,220	Office	August 2009
125 Hartwell Avenue Lexington, Massachusetts	27,060	Office and Laboratory	November 2011
45-47 Wiggins Avenue Bedford, Massachusetts	15,000	Office and Laboratory	October 2011

On March 12, 2009, we committed to a restructuring that consisted primarily of a workforce reduction of approximately 90 positions, to a total of approximately 130 positions to better align our workforce to our revised operating plans following the suspension of our SYMMETRY clinical trial. Accordingly, we are evaluating our facilities needs and anticipate we will consolidate our operations to fewer than four facilities. We have not renewed our lease for our 91 Hartwell Avenue office facility and are reviewing our options for our 47 Wiggins Avenue office and laboratory facility for which its lease provides for termination by us at any time with nine months advance notice.

Item 3. LEGAL PROCEEDINGS

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

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the fourth quarter of the year ended December 31, 2008.

PART II

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

Market Information

Our common stock began trading on The NASDAQ Global Market on February 6, 2007 under the symbol "SNTA." Prior to that time, there was no established public trading market for our common stock. The following table sets forth the high and low sales prices of our common stock as quoted on The NASDAQ Global Market for the periods indicated.

2007:	High	Low
First Quarter (from February 6, 2007)	$10.10	$8.07
Second Quarter	10.27	7.92
Third Quarter	9.86	4.93
Fourth Quarter	11.25	6.31

2008:	High	Low
First Quarter	$ 9.85	$5.91
Second Quarter	8.25	5.90
Third Quarter	10.30	5.48
Fourth Quarter	8.36	4.29

Stockholders

As of March 20, 2009, there were approximately 80 stockholders of record of the 33,919,584 outstanding shares of our common stock.

Dividends

We have never paid or declared any cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, and other factors that our board of directors deems relevant. In addition, the terms of any future debt or credit facility may preclude us from paying dividends.

Unregistered Sales of Securities

None.

Issuer Purchases of Equity Securities

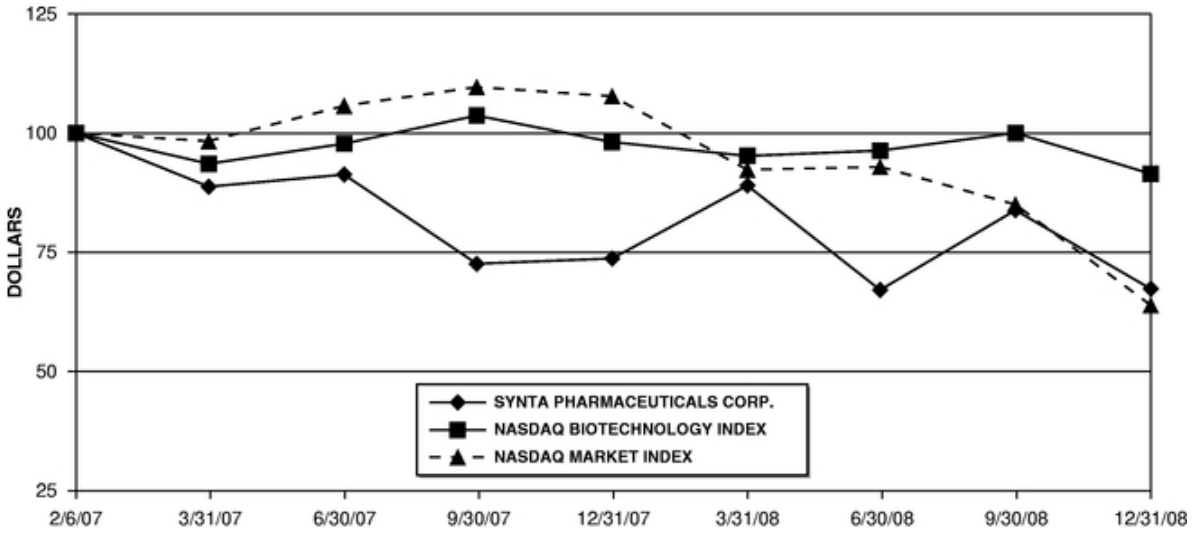
None.

Stock Performance Graph

The following graph compares the cumulative total stockholder return on our common stock from February 6, 2007 (the first trading date following our initial public offering) to December 31, 2008 with the cumulative total return of (i) the NASDAQ Market Index and (ii) the NASDAQ Biotechnology Index. This graph assumes the investment of $100.00 on February 6, 2007 in our common stock, the NASDAQ Market Index and the NASDAQ Biotechnology Index, and assumes any dividends are reinvested. We have not paid any dividends on our common stock, and we do not include dividends in

the representation of our performance. The stock price performance on the graph below does not necessarily indicate future price performance.

COMPARISON OF CUMULATIVE TOTAL RETURN
AMONG SYNTA PHARMACEUTICALS CORP.,
NASDAQ BIOTECH AND NASDAQ MARKET INDEX



	2/06/2007	3/31/2007	6/30/2007	9/30/2007	12/31/2007	3/31/2008	6/30/2008	9/30/2008	12/31/2008
Synta Pharmaceuticals Corp.	$100.00	$ 88.78	$ 91.31	$ 72.61	$ 73.71	$ 89.00	$ 67.11	$ 83.83	$ 67.33
NASDAQ Biotech	$100.00	$ 93.58	$ 97.79	$103.68	$ 98.13	$ 95.22	$ 96.34	$100.03	$ 91.48
NASDAQ Market Index	$100.00	$ 98.33	$105.74	$109.66	$ 107.75	$ 92.32	$ 92.94	$ 85.02	$ 63.91

The information in this section shall not be deemed "soliciting material" or to be "filed" with the Securities and Exchange Commission, and is not to be incorporated by reference in any filing of Synta Pharmaceuticals Corp. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K and irrespective of any general incorporation language in those filings.

Item 6. SELECTED FINANCIAL DATA

The following table sets forth our selected consolidated financial data and has been derived from our audited consolidated financial statements. Consolidated balance sheets as of December 31, 2008 and 2007, as well as consolidated statements of operations for the years ended December 31, 2008, 2007, and 2006, and the reports thereon are included elsewhere in this Annual Report on Form 10-K. The information below should be read in conjunction with our audited consolidated financial statements (and notes thereon) and "Management's Discussion and Analysis of Financial Condition and Results of Operations," included below in Item 7.

	Years ended December 31,				
	2008	2007	2006	2005	2004
	(all amounts in thousands except per share data)				
Consolidated Statement of Operations Data:					
Revenues:					
License and milestone revenue(1)(2)	$ 8,513	$ 743	$ —	$ —	$ —
Cost sharing reimbursements, net(1)	(5,898)	—	—	—	—
Grant revenue	—	—	—	—	173
Total revenues	2,615	743	—	—	173
Operating expenses:					
Research and development	81,581	52,025	50,503	59,901	38,136
Acquired in-process research and development	—	—	—	—	1,583
General and administrative	14,742	14,934	8,648	11,279	7,383
Total operating expenses	96,323	66,959	59,151	71,180	47,102
Loss from operations	(93,708)	(66,216)	(59,151)	(71,180)	(46,929)
Investment income, net	1,090	2,721	1,881	2,317	995
Net loss	(92,618)	(63,495)	(57,270)	(68,863)	(45,934)
Convertible preferred stock dividends	—	—	1,859	—	—
Convertible preferred stock beneficial conversion feature	—	58,585	—	—	—
Net loss attributable to common stockholders	$ (92,618)	$ (122,080)	$ (59,129)	$ (68,863)	$ (45,934)
Basic and diluted net loss attributable to common stockholders per share	$ (2.75)	$ (3.76)	$ (2.66)	$ (3.09)	$ (2.46)
Weighted average shares used in computing basic and diluted net loss per common share	33,736	32,466	22,265	22,253	18,704

	As of December 31,				
	2008	2007	2006	2005	2004
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$ 73,563	$ 115,577	$ 46,824	$ 62,057	$ 124,968
Collaboration receivable(2)	16,000	—	—	—	—
Working capital	57,898	96,225	36,081	48,476	113,147
Total assets	97,253	122,649	54,789	71,210	132,019
Capital lease obligations, net of current portion	2,012	2,815	3,170	4,259	1,188
Deferred collaboration revenue, net of current portion(1)(2)	114,415	74,166	—	—	—
Convertible preferred stock	—	—	41,820	—	—
Common stock	3	3	2	2	2
Additional paid-in capital	333,862	324,946	234,807	239,029	238,930
Accumulated deficit	(392,671)	(300,053)	(236,558)	(179,288)	(110,425)
Total stockholders' equity (deficit)	(58,791)	24,896	(1,747)	52,477	117,956

(1) In October 2007, we entered into the GSK Agreement with GSK for elesclomol. See Notes 2 and 9 in the accompanying consolidated financial statements.

(2) In December 2008, we entered into the Roche Agreement with Roche for our CRACM inhibitor program. See Notes 2 and 10 in the accompanying consolidated financial statements.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read together with the consolidated financial statements, related notes and other financial information included elsewhere in this Annual Report on Form 10-K.

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 three clinical-stage drug candidates and several drug candidates in the preclinical and discovery stages, each of which has a distinct chemical structure, mechanism of action, and market opportunity. Each of our drug candidates was discovered and developed internally using our proprietary, unique chemical compound library and integrated discovery engine. In October 2007, we entered into a global partnership, or GSK Agreement, with GlaxoSmithKline, or GSK, for the joint development and commercialization of elesclomol, one of our oncology drug candidates. In December 2008, we entered into a partnership, or Roche Agreement, with Hoffmann-La Roche, or Roche, for our CRACM inhibitor program, which is currently in the lead optimization stage. We retain all rights to our other drug candidates and programs.

We believe that our demonstrated ability to generate promising new drug candidates from our discovery platform, our ability to effectively enroll and conduct robust clinical trials, and our ability to enter into attractive partnerships with leading multinational pharmaceutical companies are important competitive advantages. We believe that these competitive advantages, together with our current diverse pipeline of drug candidates with distinct chemical structures and mechanisms of action, provide us with both near-term and long-term sustainable growth opportunities.

We were incorporated in March 2000 and commenced operations in July 2001. Since that time, we have been principally engaged in raising capital and in the discovery and development of novel drug candidates. Since our inception, we have had no revenues from product sales. We have funded our operations principally with $235.4 million in net proceeds from private placements of our common stock and Series A convertible preferred stock, $44.7 million in net proceeds from our initial public offering, or IPO, and $120 million in non-refundable payments under the GSK Agreement, including the $80 million upfront payment and $40 million in operational milestones, which, together with the exercise of common stock warrants and options, provided aggregate net cash proceeds of approximately $401.4 million through December 31, 2008. We have also generated funds from government grants, equipment lease financings and investment income.

As of December 31, 2008, we had $89.6 million in cash, cash equivalents, marketable securities and collaboration payments receivable, which includes the $16 million non-refundable upfront payment under the Roche Agreement that was received in January 2009. Also, in January 2009, we achieved a $10 million non-refundable operational milestone under the GSK Agreement, related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

In February 2007, we raised $50.0 million in gross proceeds from the sale of 5,000,000 shares of our common stock in our IPO at $10.00 per share. The net offering proceeds to us after deducting approximately $5.3 million in expenses for underwriters' discounts, fees and commissions, legal, accounting, printing, listing and filing fees, and miscellaneous expenses were approximately $44.7 million. All outstanding shares of our Series A convertible preferred stock and $1.9 million in accumulated dividends on the Series A convertible preferred stock were converted into 6,278,765 shares of common stock upon the completion of the IPO. In accordance with Emerging Issues Task Force, or EITF, No. 98-5, *Accounting for Convertible Securities with Beneficial Conversion Features or Contingently*

Adjustable Conversion Ratios, and EITF No. 00-27, *Application of Issue No. 98-5 to Certain Convertible Instruments,* we recorded a non-cash beneficial conversion charge of approximately $58.6 million in February 2007 in connection with the contingent adjustable conversion feature of the Series A convertible preferred stock.

We have devoted substantially all of our capital resources to the research and development of our drug candidates. We have never been profitable and, as of December 31, 2008, we had an accumulated deficit of $392.7 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 to achieve profitability and may never do so.

Key Post-2008 Developments

The SYMMETRY Phase 3 Clinical Trial

On February 26, 2009, we suspended our global Phase 3 clinical trial of elesclomol plus paclitaxel in metastatic melanoma, called the SYMMETRY trial, following a meeting of the independent data monitoring committee, or DMC. The DMC noted that while an interim review of the primary endpoint of progression-free survival, or PFS, showed trends that favored the elesclomol arm of the study; the interim analysis of the secondary endpoint of overall survival, or OS, favored the control arm. The DMC report noted that the DMC "cannot be sure whether this is an adverse treatment effect, an effect of differing post-progression (off-study) treatments or a chance effect not relating to the study drugs at all" and that this was a "paradoxical outcome" not foreseen prior to study initiation. The DMC also noted in its report that the OS for the elesclomol arm is in the range of what one would expect for survival rates in large, multinational trials in metastatic melanoma; while the OS for the control arm was somewhat longer than would be expected. Of note is that the OS data from the SYMMETRY trial are not yet mature, in that a relatively small fraction of the total survival events have occurred, meaning that OS results from this trial may change substantially over time. We expect the survival data to mature by the end of 2009.

Based on the interim review, the DMC recommended that unblinded data be released to us, and that we provide appropriate notification to investigators and patients in order that they could jointly make informed decisions on whether to continue therapy. Following our review of the data and further discussion with the DMC, we decided to suspend the SYMMETRY trial and our other ongoing elesclomol trials, including our trial in prostate cancer and our single-agent dose-escalating trial, pending further analysis of the SYMMETRY trial results. We also notified the Food and Drug Administration, or FDA, of the SYMMETRY trial findings and our decision to suspend all ongoing elesclomol trials. Following our report to the FDA, the FDA concurred with our decision and placed each of these trials on clinical hold.

In our analysis of the SYMMETRY trial results to date, we have not identified any target organ toxicities or adverse events related to elesclomol that might explain an imbalance of deaths between the two arms. We and our partner for the elesclomol program, GSK, are currently investigating a number of aspects related to the SYMMETRY trial results that will inform our choices for future direction of this program, including whether or not to restart the program in melanoma and/or other cancer indications.

Restructuring

On March 12, 2009, we committed to a restructuring that consisted primarily of a workforce reduction of approximately 90 positions, to a total of approximately 130 positions to better align our workforce to our revised operating plans following the suspension of our SYMMETRY clinical trial. We estimate our costs in connection with the workforce reduction, comprised principally of severance,

unused vacation payments, benefits continuation costs and outplacement services, will range from $1.4 million to $1.5 million. As a result of terminating these employees, we estimate we may incur an impairment charge for certain research laboratory equipment, computer equipment, and furniture and fixtures due to the fact that these assets may no longer be utilized. We estimate we will incur additional costs in connection with the suspension of the SYMMETRY trial, including one-time contract termination costs and fees and other related costs. At this time, we are unable to estimate the amount of a possible impairment or contract termination costs as we are in the process of evaluating our facilities and equipment needs and are in contract termination negotiations with certain of our vendors. Substantially all cash payments under the restructuring are expected to be paid during 2009. Employees directly affected by the restructuring have received notification and will be provided with severance payments. We expect to complete the restructuring in the second quarter of 2009.

Company Strategy

Our strategy is to use our proprietary chemical compound library and discovery capabilities, as well as strength in designing and effectively conducting robust clinical trials, to discover, develop, and commercialize novel small-molecule drug candidates for treating cancer, autoimmune, and chronic inflammatory diseases. Important elements of our long-term strategy include:

- reducing risk and increasing the probability of clinical and commercial success by maintaining, and continuously replenishing, a drug candidate pipeline that is diversified across distinct mechanism categories, chemical compound families, and therapeutic opportunities;

- using our discovery capabilities to expand and protect our intellectual property position and enhance our competitive advantages for each of these programs, including developing intellectual property associated with related chemical structures, mechanism of action, and method of use;

- using our translational research and biomarker identification capabilities to assist in identifying the most promising patient populations and optimizing the design of clinical trials for our drug candidates;

- maintaining the flexibility to partner or keep individual programs, in order to achieve the balance of fully-owned versus partnered programs that can best enhance long-term shareholder value; and

- maintaining a strong cash position, such that we have the resources and skills to continue both to advance our current pipeline of compounds and replenish our pipeline with new compounds from our discovery engine.

Oncology Programs

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

Elesclomol

Elesclomol is our first-in-class oncology drug candidate that we believe kills cancer cells by triggering programmed cell death through elevating levels of reactive oxygen species, or ROS. In October 2007, we entered into a global partnership with GSK to jointly develop and commercialize elesclomol for all indications. In February 2009, we suspended the Phase 3 SYMMETRY trial, following a DMC meeting in which the DMC noted that while the primary endpoint of PFS showed trends that favored the elesclomol arm of the study; early analysis of the secondary OS endpoint favored the control arm. We simultaneously suspended the other ongoing studies with elesclomol, including a Phase 1/2 trial of elesclomol in combination with docetaxel and prednisone in prostate cancer and a monotherapy Phase 1 trial in solid tumors. The FDA has also placed our elesclomol trials on clinical hold. We and our partner for the elesclomol program, GSK, are currently investigating a

number of aspects related to the SYMMETRY trial results that will inform our choices for future direction of this program, including whether or not to restart the program in melanoma and/or other cancer indications.

GSK Elesclomol Alliance

In October 2007, as amended in June 2008, we entered into the GSK Agreement, under which we are eligible to receive up to $1.01 billion in milestones and other payments, as well as share 40-50% of the profits and losses from sales in the United States and receive double-digit tiered royalties from net sales outside of the United States. Under the terms of the agreement, we and GSK will jointly develop and commercialize elesclomol in the United States, and GSK will have exclusive responsibility for the development and commercialization of elesclomol outside the United States. Pursuant to the agreement, we received a non-refundable upfront license payment of $80 million in November 2007. We are also eligible to receive potential operational, clinical and regulatory milestone payments from GSK of up to $585 million, which include both payments for operational progress, such as trial initiation and enrollment, and payments for positive clinical and regulatory outcomes, such as regulatory approval. Of the $585 million in potential payments, $145 million are related to the development in metastatic melanoma and $440 million are related to the development in other cancer indications. In addition to milestones related to operational progress in development and clinical and regulatory outcomes, we are eligible to receive up to $300 million in potential commercial milestone payments from GSK based on achieving certain net sales thresholds. In the year ended December 31, 2008, we achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and a $5 million non-refundable operational milestone related to the development of elesclomol in another cancer indication. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In January 2009, we achieved a $10 million non-refundable operational milestone under the GSK Agreement, related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

Under the GSK Agreement, the total worldwide development costs for elesclomol, including the development in metastatic melanoma, are shared according to an agreed targeted percentage, which represents for us a modest share of total costs. This cost share is realized by us over time through both direct cost reimbursement payments and operational milestone payments.

The GSK Agreement specifies an initial period during which we are solely responsible for all development costs, up to an agreed-upon limit, associated with specific development activities related to seeking FDA approval of elesclomol for the treatment of metastatic melanoma, whether incurred by us or GSK. Also, during this period, GSK is responsible for certain operational milestone payments to us in the amount of up to $50 million. Costs may be incurred by GSK during this period that are related to the development of elesclomol in metastatic melanoma. Such costs are our responsibility and have been recognized as a reduction of revenue under the GSK collaboration in the statement of operations; however, these costs are not required to be paid to GSK until after the final completion of the SYMMETRY trial, as defined in the GSK Agreement. Following the initial period when total melanoma development costs have exceeded the pre-specified limit, additional costs incurred for the program will no longer be our sole responsibility and will be shared by GSK in accordance with the targeted percentage defined in the GSK Agreement. Depending upon the future direction of the elesclomol program, we may be eligible for cost sharing payments under the GSK Agreement. In addition to development in metastatic melanoma, we also fund early clinical development of elesclomol in two other cancer indications. Satisfactory completion of these initial trials would result in certain milestone payments from GSK.

In the United States, our share of the operating profits and losses from the commercialization and sales of elesclomol over the life of the product will range from 40-50%, with the percentage increasing

as the level of annual sales increases. Prior to commercialization, we are responsible for funding 40% of pre-commercialization costs in the United States. We may elect not to participate in co-commercialization, in which case we would earn royalties in lieu of profit sharing. Outside of the United States, we will receive double-digit tiered royalties.

Under the GSK Agreement, GSK may, subject to our agreement, purchase up to $45 million of our common stock in two separate tranches upon the achievement of specified development and regulatory milestones. In the first tranche, GSK would be obligated to buy $25 million of our common stock at our sole discretion. The per share purchase price would be at a specified premium. We attributed $260,000 of value to this option to require GSK to purchase our common stock. The second tranche of $20 million of common stock would be subject to the agreement of both us and GSK. The per share purchase price would be at a specified premium.

GSK may terminate the GSK Agreement upon not less than three months' written notice at any time prior to the date of the first commercial sale of elesclomol and not less than six months' written notice at any time on and after such date. We are currently working with GSK to evaluate the data from the SYMMETRY trial to determine if we should continue the development of elesclomol or terminate the program. Should GSK elect to terminate the partnership, all rights to the elesclomol program would be returned to us and we would be free to develop elesclomol alone or with another partner. In such case, we would owe a small royalty to GSK on future sales of elesclomol. To date, GSK has not notified us of any intent to terminate the GSK Agreement.

STA-9090

STA-9090 is a novel, small molecule Hsp90 inhibitor drug candidate that we are developing for the treatment of a variety of cancers. STA-9090 has a unique chemical structure that is distinct from 17-AAG (geldanamycin) and other ancamycin derivatives. In preclinical studies, STA-9090 has shown the ability to inhibit multiple kinases with comparable potency to, and a broader activity profile than, specific kinase inhibitors such as imatinib (Gleevec), erlotinib (Tarceva), and sunitinib (Sutent). In addition, STA-9090 has shown potency 10 to 100 times greater than the ancamycin family of Hsp90 inhibitors, as well as activity against a wider range of kinases. In *in vivo* models, STA-9090 has shown strong efficacy in a wide range of cancer types, including cancers resistant to Gleevec, Tarceva, and Sutent. We believe that this creates a distinct activity profile for STA-9090 and is a competitive advantage.

STA-9090 Ongoing Clinical Trials

We are currently enrolling patients in two Phase 1, open-label studies in patients with solid-tumor cancers to identify the maximum tolerated dose, or MTD, of STA-9090 based on once- and twice-a-week intravenous dosing schedules, respectively. In addition to an evaluation of safety and tolerability, patients in each of these studies will be assessed for tumor response based on the industry standard Response Evaluation Criteria in Solid Tumors, or RECIST, criteria. We also recently initiated a Phase 1/2 open-label clinical study of STA-9090 in patients with hematologic cancers, with a twice-a-week dosing schedule. Later in 2009, we plan to initiate a Phase 2 trial in hematologic cancers with a once-a-week dosing schedule as well as one or more Phase 2 studies in solid-tumor cancers.

In our Phase 1 solid-tumor trials, we have escalated multiple dose-level cohorts in each study and have to date observed an acceptable safety profile. We have also seen biomarker activity that has increased with increasing doses of STA-9090. In addition to the acceptable safety profile and encouraging signs of biological activity, we have seen two confirmed responses, as defined by RECIST criteria, and a number of cases of prolonged stable disease. These responses and cases of stable disease occurred in a patient population that is generally refractory or resistant to treatments with other agents.

We believe that these data are encouraging, suggest clinical activity of STA-9090 and support continued evaluation of STA-9090 in further studies.

2nd Generation Hsp90 Inhibitors

Earlier this year, we initiated preclinical development of a follow-on, small molecule, injectable Hsp90 inhibitor. This compound has a unique chemical structure that we believe enhances certain desirable properties. In addition, we are currently working on a new series of Hsp90 inhibitor compounds that may be orally administered. These compounds are in the lead optimization stage.

STA-9584

STA-9584 is a novel, injectable, small molecule compound that disrupts the blood vessels that supply tumors with oxygen and essential nutrients. In preclinical testing, 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. This program is currently in preclinical development.

Our Inflammatory Disease Programs

We have one clinical-stage program and one pre-clinical stage-program 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.

Apilimod (STA-5326)

Apilimod is a novel, orally administered, small molecule drug candidate we are developing for the treatment of autoimmune and other chronic inflammatory diseases. Apilimod inhibits the production of the cytokines interleukin-12, or IL-12, and interleukin-23, or IL-23, and thereby down-regulates the inflammation pathways that underlie certain autoimmune and inflammatory diseases. We submitted the initial IND for apilimod in March 2003.

We are currently conducting a Phase 2a clinical trial of apilimod in patients with rheumatoid arthritis, or RA. The RA study completed initial enrollment of 22 patients and the preliminary results showed encouraging biomarker and clinical signals suggesting activity of apilimod in this indication. We have elected to enroll an additional cohort in this trial to explore a higher dose of apilimod. We expect to have results from this higher dose cohort in the second half of 2009.

We are also exploring the possibility of using apilimod in a topical formulation to treat inflammatory diseases of the skin, such as psoriasis. We have developed a promising prototype formulation and are planning to conduct proof-of-concept studies in animals during the second half of 2009.

In addition to apilimod, we have also identified several other small molecule IL-12/23 inhibitors that we believe have comparable activity to apilimod with significantly improved pharmaceutical properties. We believe that these new compounds represent a promising opportunity to develop next-generation drug candidates that could be administered orally at higher doses than apilimod and potentially address a wider range of serious inflammatory diseases with high unmet medical needs.

CRACM Ion Channel Inhibitors

We have developed novel, small molecule inhibitors of calcium release activated calcium modulator, or CRACM, ion channels expressed on immune cells. The CRACM ion channel is the primary route for calcium entry into T cells and other immune cells, regulating multiple immune cell

processes important for initiating and maintaining an inflammatory immune response. 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 rheumatoid arthritis, asthma, chronic obstructive pulmonary disease, or COPD, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. This program is in the lead optimization stage. In December 2008, we entered into a global partnership with Roche to further develop our CRACM inhibitors. We anticipate nominating a development candidate for preclinical development in 2009 and are targeting Phase 1 initiation in 2010.

Roche CRACM Inhibitor Alliance

In December 2008, we entered into the Roche Agreement to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The goal is to develop a novel category of oral, disease-modifying agents for the treatment of rheumatoid arthritis, asthma, chronic obstructive pulmonary disease, or COPD, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions. Under the terms of the agreement, Roche will fund research to be conducted by us during an initial two-year research period. Roche will receive worldwide rights to develop and commercialize certain products identified prior to the end of this research period. We retain certain co-development and co-promotion rights. All preclinical, clinical, and commercial costs will be paid by Roche.

Pursuant to the agreement, we received a non-refundable upfront license payment of $16 million in January 2009. Roche will pay all of our research costs, with a minimum of $9 million in committed research support, and all of our development costs for compounds nominated for clinical development. We are 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. In addition, all commercial costs will be paid by Roche. 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. We will seek to generate revenue from product sales and from future collaborative or strategic relationships, which could include research and development, milestone payments, profit sharing and royalties.

In October 2007, we entered into the GSK Agreement for our lead drug candidate, elesclomol. The $80 million non-refundable upfront payment we received from GSK in November 2007, together with the $260,000 estimated value of an option to require GSK to purchase $25 million of our common stock, is being recognized ratably as collaboration revenue using the time-based model over the estimated performance period, the 15-year period through the earliest expiration date of the related patents, which we estimate to be the effective life of the GSK Agreement. We are also recognizing product development milestones as collaboration revenue using the time-based model over the same performance period through November 2022 and recognize as revenue on the date the milestone is

achieved the portion of the milestone payment equal to the applicable amount of the performance period that has elapsed as of the date the milestone is achieved, with the balance being deferred and recognized on a straight-line basis over the remaining development period. (see "Critical Accounting Policies and Estimates—Revenue Recognition"). In the year ended December 31, 2008, we achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and a $5 million non-refundable operational milestone related to the development of elesclomol in another cancer indication. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In the years ended December 31, 2008 and 2007, we recognized $8.4 million and $0.7 million, respectively, of license and milestone revenue under the GSK Agreement. In January 2009, we achieved a $10 million non-refundable operational milestone related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

Reimbursements of development costs to us by GSK are recorded as cost sharing revenue in the period in which the related development costs are incurred. Reimbursements by us to GSK for costs GSK incurs under the development program are recorded as a reduction of cost sharing revenue in the period in which the costs are incurred by GSK. Reimbursement of GSK's costs in an amount in excess of collaboration revenues otherwise recognized by us in a reporting period may result in negative revenue. In the year ended December 31, 2008, we recognized, as a reduction to revenue, $5.9 million of net cost sharing reimbursements to GSK under the GSK Agreement as we are solely responsible for funding 100% of the development costs of elesclomol for the treatment of metastatic melanoma until a specified limit of expenses has been incurred, after which continuing development costs are shared by GSK with us responsible for a modest share of the costs. Depending upon the future direction of the elesclomol program, we may be eligible for cost sharing payments under the GSK Agreement.

In December 2008, we entered into the Roche Agreement to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The $16 million non-refundable upfront license payment we received from Roche in January 2009 is being recognized ratably using the time-based model over the estimated performance period which has been defined as the 3.5-year period through the estimated date of completion of a phase 2a clinical trial for the first licensed compound. In the year ended December 31, 2008, we recognized $0.1 million of license revenue under the Roche Agreement. Reimbursements of research and development costs to us by Roche will be recorded as cost sharing revenue in the period in which the related research and development costs are incurred. Development milestones will be recognized as collaboration revenue using the time-based model over the same performance period through mid-2012.

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 under the GSK Agreement and 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.

In 2009, we anticipate that our overall research and development expenses, including personnel costs and external costs in connection with clinical development activities, will decrease due to the suspension of our elesclomol program and subsequent restructuring. However, certain program costs are expected to increase as we advance clinical development of our STA-9090 program and commence preclinical development of our CRACM program. Also, a possible restart of the elesclomol program based upon the outcome of the investigation of the results of the SYMMETRY trial may result in increased research and development expenses.

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. In 2009, we anticipate that our overall general and administrative expenses, including personnel costs and external commercial development costs, will decrease due to the suspension of our elesclomol program and subsequent restructuring.

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 accrued expenses, including long-term contract accruals, the recoverability of long-lived and deferred tax assets, measurement of stock-based compensation and the period of performance under the GSK Agreement and the Roche Agreement. 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.

We believe the following accounting policies and estimates are most critical to aid in understanding and evaluating our reported financial results.

Revenue Recognition

Collaboration and License Agreements

Our principal sources of revenue may include upfront license payments, development milestones, reimbursement of research and development costs, profit sharing payments, sales milestones and royalties from our collaborations. We recognize revenue from these sources in accordance with Staff Accounting Bulletin (SAB) 104, *Revenue Recognition*, or SAB 104, Emerging Issues Task Force (EITF) No. 99-19, *Reporting Revenue Gross as a Principal Versus Net as an Agent,* or EITF No. 99-19, EITF No. 00-21, *Revenue Arrangements with Multiple Deliverables*, or EITF No. 00-21, and EITF No. 01-09, *Accounting for Consideration Given by a Vendor to a Customer (Including a Reseller of the Vendor's Products)*, or EITF No. 01-09. The application of EITF No. 00-21 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.

We evaluate the multiple deliverables within our respective collaborations in accordance with the provisions of EITF No. 00-21 to determine whether the delivered elements that are our obligation have value to our 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.

Our deliverables under our collaboration agreements, including the related rights and obligations, contractual cash flows and performance periods, are more fully described in Notes 9 and 10 of the

accompanying consolidated financial statements. 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 our 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 our collaborators are contractually obligated to pay us.

Collaborative Development, Commercialization and License Agreement with GSK

In October 2007, we and GSK entered into the GSK Agreement, as amended in June 2008, for elesclomol, a novel injectable, small molecule compound that triggers apoptosis, or programmed cell death, in cancer cells, which we believe has potential for the treatment of a broad range of cancer types. The GSK Agreement consists of the following key funding streams: an upfront license payment, product development milestones, reimbursements of certain development costs, sales milestones, profit sharing payments and product royalty payments.

The $80 million non-refundable upfront license payment we received from GSK in November 2007, together with the $260,000 fair value of an option to require GSK to purchase $25 million of our common stock, is being recognized ratably using the time-based model over the estimated performance period which has been defined as the 15-year period through the earliest expiration date of the related patents, which we estimate to be the effective life of the GSK Agreement. There has been no change to this estimate to date. We are also recognizing product development milestones as collaboration revenue using the time-based model over the same performance period through November 2022. We recognize as revenue on the date the milestone is achieved the portion of the milestone payment equal to the applicable amount of the performance period that has elapsed as of the date the milestone is achieved, with the balance being deferred and recognized on a straight-line basis over the remaining development period. In the year ended December 31, 2008, we achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and a $5 million non-refundable operational milestone related to the development of elesclomol in another cancer indication. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In the years ended December 31, 2008 and 2007, we recognized $8.4 million and $0.7 million, respectively, of license and milestone revenue under the GSK Agreement. In January 2009, we achieved a $10 million non-refundable operational milestone related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

Reimbursements of development costs to us by GSK are recorded as cost sharing revenue in the period in which the related development costs are incurred. Reimbursements by us to GSK for costs GSK incurs under the development program are recorded as a reduction of cost sharing revenue in the period in which the costs are incurred by GSK in accordance with EITF No. 01-09. Reimbursement of GSK's costs in an amount in excess of collaboration revenues otherwise recognized by us in a reporting period may result in negative revenue. Based on the guidance of EITF No. 99-19, we have determined that we are acting as a principal under the GSK Agreement and, as such, record these amounts as collaboration revenue. In the year ended December 31, 2008, we recognized, as a reduction to revenue, $5.9 million of net cost sharing reimbursements to GSK under the GSK Agreement as we are solely responsible for funding 100% of the development costs of elesclomol for the treatment of metastatic

melanoma until a specified limit of expenses has been incurred, after which continuing development costs are shared by GSK with us responsible for a modest share of the costs.

Profit sharing payments are based upon a formula that provides for a range of 40-50% of net profits earned on U.S. sales of products included in the GSK Agreement. Royalty revenues are based upon a percentage of net sales in non-U.S. territories. Profit sharing payments and royalties from the sales of products included in the GSK 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 collectability is reasonably assured.

Collaborative License Agreement with Roche

In December 2008, we and Roche entered into the Roche Agreement to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The Roche Agreement consists of the following key funding streams: an upfront license payment, product development milestones, reimbursements of certain research and development costs, sales milestones and product royalty payments.

The $16 million non-refundable upfront license payment that we received from Roche in January 2009 is being recognized ratably using the time-based model over the estimated performance period which has been defined as the 3.5-year period through the estimated date of completion of a phase 2a clinical trial for the first licensed compound. In the year ended December 31, 2008, we recognized $0.1 million of license revenue under the Roche Agreement. Reimbursements of research and development costs to us by Roche will be recorded as cost sharing revenue in the period in which the related research and development costs are incurred. Development milestones will be recognized as collaboration revenue using the time-based model over the same performance period through mid-2012.

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 collectability is reasonably assured.

Deferred Collaboration Revenue

Consistent with our 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 us. Such amounts are reflected as deferred collaboration revenue until revenue can be recognized under our revenue recognition policy. Deferred collaboration revenue is classified as current if management believes we will complete the earnings process and be able to recognize the deferred amount as revenue within 12 months of the balance sheet date. As of December 31, 2008, total deferred collaboration revenue was approximately $127 million, of which $12.6 million is current and will be recognized as revenue during the next 12 months.

Accrued Expenses and Accrued Contract Research Liabilities

As part of the process of preparing financial statements, we are required to estimate accrued expenses. This process involves identifying services which have been performed on our behalf, and estimating the level of service performed and the associated cost incurred for such service as of each balance sheet date in our financial statements. Given our current business, the primary area of

uncertainty concerning accruals which could have a material effect on our business is with respect to service fees paid to contract manufacturers in conjunction with the production of clinical drug supplies and to contract research organizations in connection with our preclinical studies and clinical trials. In connection with all of the foregoing service fees, our estimates are most affected by our understanding of the status and timing of services provided. The majority of our service providers, including contract research organizations, invoice us in arrears for services performed. In the event that we do not identify some costs which have begun to be incurred, or we under or over estimate the level of services performed or the costs of such services in a given period, our reported expenses for such period would be understated or overstated. We currently reflect the over or under accrual of expenses directly in our operations in the period the amount was determined.

Our arrangements with contract research organizations in connection with clinical trials often provide for payment prior to commencing the project or based upon predetermined milestones throughout the period during which services are expected to be performed. We recognize expense relating to these arrangements based on the various services provided over the estimated time to completion. The date on which services commence, the level of services performed on or before a given date, and the cost of such services are often determined based on subjective judgments. We make these judgments based upon the facts and circumstances known to us based on the terms of the contract or our ongoing monitoring of service performance. In the years ended December 31, 2008, 2007 and 2006, respectively, we had arrangements with multiple contract research organizations whereby these organizations commit to performing services for us over multiple reporting periods. We currently recognize and plan to continue to recognize the expenses associated with these arrangements based on our expectation of the timing of the performance of components under these arrangements by these organizations. Generally, these components consist of the costs of setting up the trial, monitoring the trial, closing the trial and preparing the resulting data.

With respect to financial reporting periods presented in this Annual Report on Form 10-K, and based on our receipt of invoices from our third party providers, the timing of our actual costs incurred have not differed materially from our estimated timing of such costs. In light of the foregoing, we do not believe our estimates of future expenses and our practice of making judgments concerning the accrual of expenses are reasonably likely to change in the future. There were no changes in our estimates and accruals for contract service fees that had a material effect on our net losses in the years ended December 31, 2008, 2007 and 2006, respectively.

Stock-Based Compensation

We continue to use the Black-Scholes option pricing model as the most appropriate valuation method for our option grants. The Black-Scholes model requires inputs for risk-free interest rate, dividend yield, volatility and expected lives of the options. Since we do not have a significant history of stock trading activity, expected volatility is based on historical data from several public companies similar in size and value to us. We will continue to use a weighted average approach using historical volatility and other similar public entity volatility information until historical volatility of our common stock is relevant to measure expected volatility for future option grants. We estimate the forfeiture rate based on historical data. Our options generally vest 25% after one year of service and quarterly over three years thereafter. Based on an analysis of historical forfeitures, we 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 will be re-evaluated at least annually and the forfeiture rate will be adjusted as necessary. The risk-free interest 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 represents the period of time that options granted are expected to be outstanding. Since January 1, 2006, we have used the simplified method for determining the expected lives of options.

For awards with graded vesting, we allocate compensation costs under Statement of Financial Accounting Standards, or SFAS, No. 123R, *Share-Based Payment,* on a straight-line basis over the requisite service period. Accordingly, we amortize the fair value of each option over each option's service period, which is generally the vesting period.

We account for stock options issued to non-employees in accordance with the provisions of SFAS No. 123, *Accounting for Stock-Based Compensation*, and EITF No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees, or in Conjunction with Selling Goods or Services,* which requires valuing and remeasuring such stock options to the current fair value until the performance date has been reached.

Our net loss includes compensation costs in the amount of $7.6 million, $5.4 million and $4.8 million for the years ended December 31, 2008, 2007 and 2006, respectively, and no income tax benefit related to our stock-based compensation arrangements for employee and non-employee awards. As of December 31, 2008, the total amount of unrecognized stock-based compensation expense was $9.8 million, which will be recognized over a weighted average period of 2.7 years.

Consolidated Results of Operations

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

Collaboration Revenue

	Year Ended December 31,		2008 to 2007 Change	
	2008	2007	$	%
	(dollars in millions)			
License and milestone revenue	$ 8.5	$ 0.7	$ 7.8	1,114%
Cost sharing reimbursements, net	(5.9)	—	(5.9)	—%
Total collaboration revenue	$ 2.6	$ 0.7	$ 1.9	271%

In October 2007, we entered into a collaborative development, commercialization and license agreement with GSK for elesclomol. In the year ended December 31, 2008, we recognized a full year of license revenue in connection with the $80 million non-refundable upfront payment we received from GSK in November 2007, together with the $260,000 estimated value of an option to require GSK to purchase $25 million of our common stock. In the year ended December 31, 2008, we achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and a $5 million non-refundable operational milestone related to the development of elesclomol in another cancer indication. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In the years ended December 31, 2008 and 2007, we recognized $8.4 million and $0.7 million, respectively, of license and milestone revenue under the GSK Agreement. In addition, in the year ended December 31, 2008, we began recognizing, as a reduction to revenue, net cost sharing reimbursements due to GSK for costs they incurred under the development program. (See Notes 2 and 9 in the accompanying consolidated financial statements.)

In December 2008, we entered into a collaborative license agreement with Roche to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. In the year ended December 31, 2008, we recognized $0.1 million of license revenue in connection with the $16 million non-refundable upfront license payment we received from Roche in January 2009. (See Notes 2 and 10 in the accompanying consolidated financial statements.)

Research and Development Expense

	Year Ended December 31,		2008 to 2007 Change	
	2008	2007	$	%
	(dollars in millions)			
Clinical-stage drug candidates				
Elesclomol	$ 60.1	$ 32.0	$28.1	88%
STA-9090	6.3	7.0	(0.7)	(10)%
Apilimod	0.4	1.3	(0.9)	(69)%
Total clinical-stage drug candidates	66.8	40.3	26.5	66%
CRACM	5.7	8.0	(2.3)	(29)%
Other early stage programs	9.1	3.7	5.4	146%
Total research and development	$ 81.6	$ 52.0	$29.6	57%

In the year ended December 31, 2008, costs incurred under our elesclomol program increased by $28.1 million over the year ended December 31, 2007, including a $5.7 million increase for personnel costs, related research supplies, operational overhead and stock compensation, and a $22.4 million increase for external costs. These increases were principally due to expenses incurred in connection with elesclomol for the treatment of metastatic melanoma, including the advancement of the SYMMETRY trial, our global, pivotal Phase 3 clinical trial which was initiated in the third quarter of 2007, and the conduct of registration manufacturing and other supporting activities required for a possible new drug application, or NDA, filing in 2009. In addition, we advanced elesclomol sodium in support of the Phase 1/2 trial in combination with docetaxel in hormone refractory prostate cancer that was initiated in the fourth quarter of 2008 and in support of the single agent, dose escalation clinical study in solid tumors that was initiated in the first quarter of 2009, as well as conducted further evaluation of elesclomol in other cancer types. In 2009, we anticipate that costs under our elesclomol program will decrease significantly due to the suspension of the elesclomol program in February 2009 and the subsequent restructuring.

In the year ended December 31, 2008, costs incurred under our STA-9090 program decreased by $0.7 million over the year ended December 31, 2007, including a $1.8 million decrease for personnel costs, related research supplies, operational overhead and stock compensation, offset by a $1.1 million increase for external costs. The decrease in internal-related costs was principally due to a decrease in resource allocation in connection with the advancement of the STA-9090 program from preclinical development into clinical development in the second half of 2007. The increase in external costs was principally due to a full year of clinical trial costs and related drug supply manufacturing in support of the two Phase 1 clinical trials that were initiated in the fourth quarter of 2007 and the Phase 1/2 trial in hematological cancers that was initiated in the first quarter of 2009, offset by nonrecurring costs incurred in 2007 to complete preclinical development. In 2009, we anticipate that our costs incurred under our STA-9090 program will increase based upon the Phase 1/2 trial in hematological cancers that was initiated in the first quarter of 2009 and additional clinical trials planned to commence later in the year.

In the year ended December 31, 2008, costs incurred in connection with apilimod decreased by $0.9 million over the year ended December 31, 2007, including a $0.3 million decrease for personnel costs, related research supplies, operational overhead and stock compensation, and a $0.6 million decrease for external costs. These decreases were principally due to the timing of treating patients in our Phase 2a trial for RA as the treatment for the initial two cohorts of patients was completed in 2007 and we began enrolling additional patients to explore a higher dose of apilimod in the second half of 2008.

In the year ended December 31, 2008, costs incurred under our CRACM program decreased by $2.3 million over the year ended December 31, 2007, including a $2.5 million decrease for personnel costs, related research supplies, operational overhead and stock compensation, offset by a $0.2 million increase for external costs. The net decrease was principally due to resource allocation. In 2009, we anticipate that development costs incurred under our CRACM program will increase as we anticipate nominating a candidate and conducting preclinical development.

In addition, in the year ended December 31, 2008, costs incurred under our other early-stage programs increased by $5.4 million over the year ended December 31, 2007, including increases of $4.9 million for personnel costs, related research supplies, operational overhead and stock compensation, and $0.5 million for external costs.

General and Administrative Expense

	Year Ended December 31,		2008 to 2007 Change	
	2008	2007	$	%
	(dollars in millions)			
General and administrative	$ 14.7	$ 14.9	$(0.2)	(1)%

The decrease in general and administrative expense principally resulted from an increase of $0.8 million for personnel costs and related overhead in connection with increased headcount and stock compensation, offset by a $1.0 million decrease in external professional fees, including intellectual property and general legal fees, public-company reporting and compliance requirements, director and officer insurance premiums, investor and medical-community relations and commercial development, as well as in corporate taxes. In 2009, we anticipate that our overall general and administrative expenses, including personnel costs and external commercial development costs, will decrease due to the suspension of our elesclomol program and subsequent restructuring.

Investment Income, Net

	Year Ended December 31,		2008 to 2007 Change	
	2008	2007	$	%
	(dollars in millions)			
Investment income, net	$ 1.1	$ 2.7	$(1.6)	(59)%

The decrease in net investment income was principally due to declining interest rates and lower average cash balances.

Year Ended December 31, 2007 Compared with Year Ended December 31, 2006

Revenue

	Year Ended December 31,		2007 to 2006 Change	
	2007	2006	$	%
	(dollars in millions)			
Revenues	$ 0.7	$ —	$0.7	—

In October 2007, we entered into a collaborative development, commercialization and license agreement with GSK for elesclomol. The $80 million non-refundable upfront payment we received from GSK in November 2007, together with the $260,000 estimated value of an option to require GSK to purchase $25 million of our common stock, is being recognized ratably as collaboration revenue using the time-based model over the estimated performance period, the 15-year period through the earliest

expiration date of the related patents, which we estimate to be the effective life of this agreement. (See Notes 2 and 9 in the accompanying consolidated financial statements.)

Research and Development Expense

	Year Ended December 31,		2007 to 2006 Change	
	2007	2006	$	%
	(dollars in millions)			
Clinical-stage drug candidates				
Elesclomol	$ 32.0	$ 9.6	$ 22.4	233%
Apilimod	1.3	16.8	(15.5)	(92)%
STA-9090	7.0	12.3	(5.3)	(43)%
Total clinical-stage drug candidates	40.3	38.7	1.6	4%
Early stage and discontinued programs	11.7	11.8	(0.1)	(1)%
Total research and development	$ 52.0	$ 50.5	$ 1.5	3%

In the year ended December 31, 2007, costs incurred under our elesclomol program increased by $22.4 million over the year ended December 31, 2006, including a $13.7 million increase for personnel costs, related research supplies, operational overhead and stock compensation, and an $8.7 million increase for external costs. These increases were principally due to start-up expenses incurred in connection with the SYMMETRY trial, our global, pivotal Phase 3 clinical trial of elesclomol for the treatment of metastatic melanoma, which was initiated in the third quarter of 2007, offset by non-recurring external costs incurred in 2006 in connection with the completion of the Phase 2b clinical trial for metastatic melanoma.

In the year ended December 31, 2007, costs incurred in connection with apilimod for the treatment of Crohn's disease decreased by $15.5 million over the year ended December 31, 2006, including a $6.8 million decrease for personnel costs, related research supplies, operational overhead and stock compensation, and an $8.7 million decrease for non-recurring external costs. These decreases were principally due to the completion of the Phase 2b clinical trial in June 2006.

In the year ended December 31, 2007, costs incurred under our STA-9090 program decreased by $5.3 million over the year ended December 31, 2006, including a $2.9 million decrease for personnel costs, related research supplies, operational overhead and stock compensation, and a $2.4 million decrease for external costs. These decreases were principally due to the advancement of the program from preclinical development into clinical development upon the filing of an IND application in the third quarter of 2007 and the initiation of two Phase 1 clinical trials in the fourth quarter of 2007.

In addition, in the year ended December 31, 2007, costs incurred under our early-stage and discontinued programs decreased by $0.1 million over the year ended December 31, 2006, including a $0.6 million increase for personnel costs, related research supplies, operational overhead and stock compensation, offset by a $0.7 million decrease for external costs.

General and Administrative Expense

	Year Ended December 31,		2007 to 2006 Change	
	2007	2006	$	%
	(dollars in millions)			
General and administrative	$ 14.9	$ 8.6	$6.3	73%

The increase in general and administrative expense principally resulted from increases of $1.9 million for personnel costs and related overhead in connection with increased headcount and stock

compensation, and $4.4 million in external professional fees, including investor and medical community relations, public-company reporting and compliance requirements and increased director and officer insurance premiums following completion of our IPO in February 2007, as well as intellectual property and general legal fees.

Investment Income, Net

	Year Ended December 31,		2007 to 2006 Change	
	2007	2006	$	%
	(dollars in millions)			
Investment income, net	$ 2.7	$ 1.9	$0.8	42%

The increase in net investment income was principally due to the higher average cash balances resulting from the net cash proceeds of $44.7 million raised from the sale of our common stock in our IPO in February 2007 and the $80 million non-refundable upfront payment received from GSK in November 2007.

Liquidity and Capital Resources

Sources of Liquidity

We have incurred significant operating losses since our inception. We have funded our operations principally with $235.4 million in net proceeds from private placements of our common stock and Series A convertible preferred stock, $44.7 million in net proceeds from our IPO, and $120 million in non-refundable payments under the GSK Agreement, including the $80 million upfront payment and $40 million in operational milestones, which, together with the exercise of common stock warrants and options, provided aggregate net cash proceeds of approximately $401.4 million through December 31, 2008. We have also generated funds from government grants, equipment lease financings and investment income.

As of December 31, 2008, we had $89.6 million in cash, cash equivalents, marketable securities and collaboration payments receivable, which includes the $16 million non-refundable upfront payment under the Roche Agreement that was paid in January 2009. This compares to $115.6 million in cash, cash equivalents and marketable securities as of December 31, 2007. There were no collaboration payments receivable as of December 31, 2007. This decrease principally reflects net cash used in operations as discussed under "Cash Flows" below. In addition, in January 2009, we achieved a $10 million non-refundable operational milestone under the GSK Agreement, related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

In October 2007, we entered into the GSK Agreement with GSK and received a non-refundable upfront cash payment of $80 million in November 2007. We are also eligible to receive potential operational, clinical and regulatory milestone payments from GSK of up to $585 million, which include both payments for operational progress, such as trial initiation and enrollment, and payments for positive clinical and regulatory outcomes, such as regulatory approval. Of the $585 million in potential payments, $145 million are related to the development in metastatic melanoma and up to $440 million are related to the development of elesclomol in other cancer indications. In addition, we are eligible to receive up to $300 million in potential commercial milestone payments from GSK based on achieving certain net sales thresholds. In the year ended December 31, 2008, we achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and a $5 million non-refundable operational milestone related to the development of elesclomol in another cancer indication. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In January 2009, we achieved a $10 million

non-refundable operational milestone related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009. Depending upon the future direction of the elesclomol program, we may be eligible for cost sharing and additional milestone payments under the GSK Agreement.

In December 2008, we entered into the Roche Agreement with Roche and received a non-refundable upfront license payment of $16 million in January 2009. Under the terms of the agreement, Roche will pay all of our research costs, with a minimum of $9 million in committed research support, and all of our development costs for compounds nominated for clinical development. We are 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. In addition, all commercial costs will be paid by Roche. We will receive tiered royalties on sales of all approved, marketed products.

Cash Flows

The following table provides information regarding our cash position, cash flows and capital expenditures for the years ended December 31, 2008, 2007 and 2006.

	Year Ended December 31,		
	2008	2007	2006
	(dollars in millions)		
Cash, cash equivalents and marketable securities	$ 73.6	$ 115.6	$ 46.8
Working capital	57.9	96.2	36.1
Cash flows (used in) provided by:			
Operating activities	(37.9)	27.2	(53.0)
Investing activities	(23.7)	10.8	23.6
Financing activities	(1.9)	43.9	39.3
Capital expenditures (included in investing activities)	(2.2)	(2.4)	(1.6)

Our operating activities used cash of $37.9 million and $53.0 million in the years ended December 31, 2008 and 2006, respectively. Our operating activities provided cash of $27.2 million in the year ended December 31, 2007, including the $80 million non-refundable upfront payment received under the GSK Agreement in November 2007, offset by $52.8 million in the use of cash in operations. The use of cash in all of 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 $23.7 million in the year ended December 31, 2008, including purchases of marketable securities in the amount of $21.5 million and purchases of property and equipment in the amount of $2.2 million. Our investing activities provided cash of $10.8 million in the year ended December 31, 2007, including sales and maturities of marketable securities in our investment portfolio in the amount of $28.1 million, offset by the purchases of marketable securities in the amount of $15.0 million and purchases of property and equipment in the amount of $2.4 million. Our investing activities provided cash of $23.6 million in the year ended December 31, 2006, including sales and maturities of marketable securities in our investment portfolio in the amount of $143.4 million, offset by the purchases of marketable securities in the amount of $118.2 million and purchases of property and equipment in the amount of $1.6 million.

Our financing activities used cash of $1.9 million in the year ended December 31, 2008 and provided cash of $43.9 million and $39.3 million in the years ended December 31, 2007 and 2006,

respectively. In February 2007, we raised net cash proceeds of $44.7 million from the sale of 5,000,000 shares of common stock in our IPO. In June 2006, we raised gross proceeds of $40.0 million from the sale of 8,000,000 shares of our Series A convertible preferred stock. We raised $0.9 million, $2.0 million and $1.4 million in proceeds from the sale and lease-back of property and equipment in the years ended December 31, 2008, 2007 and 2006, respectively. We repaid $2.8 million, $2.6 million and $2.1 million in capital equipment leases in the years ended December 31, 2008, 2007 and 2006, respectively. In January 2007, we repurchased 29,046 shares of our previously issued restricted common stock in the amount of $0.3 million from certain officers and non-officer employees in order to fund the minimum statutory tax withholding requirements related to the vesting of 80,000 shares of restricted common stock.

Contractual Obligations and Commitments

The following tables summarize our contractual obligations at December 31, 2008 and the effects such obligations are expected to have on our liquidity and cash flows in future periods (in millions).

Contractual Obligations (as of December 31, 2008)	Total	2009	2010 through 2011	2012 through 2013	More than 5 years
Capital lease obligations(1)	$ 4.7	$ 2.5	$ 2.1	$ 0.1	$ —
Operating lease obligations	6.2	2.5	3.7	—	—
Research and development contracts(2)	16.6	15.4	1.2	—	—
Consulting	0.1	0.1	—	—	—
Purchase obligations	0.2	0.1	0.1	—	—
Total	$27.8	$20.6	$ 7.1	$ 0.1	—

(1) Including scheduled interest payments.

(2) Research and development contracts principally include contracts for human clinical studies, animal studies and clinical manufacturing. The future research and development contract obligations in the table of Contractual Obligations and Commitments above reflect the suspension of the elesclomol program in February 2009 and otherwise assume that each of the other studies and related manufacturing contracts is completed as planned. In the event a study or manufacturing contract is terminated prior to the planned completion by mutual agreement between the contractor and us, the amount paid under such contracts may be less than the amounts presented. We are currently working with GSK to evaluate the data from the SYMMETRY trial to determine if development of the elesclomol program should continue. If development of the elesclomol program was to continue certain of the above research and development obligations may be higher.

Under various license agreements, substantially all of which are related to our early-stage discovery programs, we may be obligated to pay up to an aggregate of $2.2 million if specified development and commercialization milestones are met, as follows (in millions). These amounts are not included in the table of Contractual Obligations and Commitments above.

Milestone	Amount
Phase 1 clinical trials	$ 0.2
Phase 2 clinical trials	0.3
Phase 3 clinical trials	0.3
Completion of Phase 3 clinical trials	0.1
FDA new drug approval	1.1
European market approval	0.2
Total	$ 2.2

Funding Requirements

We expect to incur substantial expenses and generate significant operating losses as we continue to advance our drug candidates into preclinical studies and clinical trials and as we:

- complete the previously announced restructuring;
- wind-down the suspended SYMMETRY trial;
- evaluate the data from the recently suspended Phase 3 SYMMETRY trial of elesclomol and determine in conjunction with our partner, GSK, whether to continue development of elesclomol or to terminate the development program;
- 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 earlier stage clinical trial results;
- complete preclinical development of our second generation Hsp90 inhibitor and initiate clinical trials of this compound, if supported by the preclinical data;
- complete preclinical development of STA-9584 and initiate clinical trials, if supported by positive preclinical data;
- complete the current Phase 2a clinical trial of apilimod for the treatment of rheumatoid arthritis, or RA, and possibly initiate additional Phase 2 clinical trials of apilimod in RA or other inflammatory disease indications;
- advance our CRACM inhibitor program into preclinical development and possibly into clinical trials, if supported by positive preclinical data and consistent with our obligations under our collaboration and license agreement, or the Roche Agreement, with Hoffmann-La Roche, or Roche;
- 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:

- our determination, based on the ongoing analysis of the data from the recently suspended Phase 3 SYMMETRY trial, to continue the development of elesclomol or to terminate the development program;
- our ability to fulfill our obligations under and otherwise maintain the GSK Agreement and for GSK to satisfy its obligations under the GSK Agreement, including payment of funding obligations and milestone payments;
- the progress and results of our ongoing Phase 1 and Phase 1/2 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 results of our preclinical studies of STA-9584 and testing of our CRACM inhibitors, 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 progress and results of the current Phase 2a clinical trial of apilimod for the treatment of RA and any future clinical trials we may initiate for RA or other inflammatory disease indications;

- 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.

Liquidity

On February 26, 2009, we announced that we were suspending all clinical development of our lead drug candidate, elesclomol. On March 12, 2009, we committed to a restructuring that consisted primarily of a workforce reduction of approximately 90 positions, to a total of approximately 130 positions to better align our workforce to our revised operating plans following the suspension of our SYMMETRY clinical trial. We estimate our costs in connection with the workforce reduction, comprised principally of severance, unused vacation payments, benefits continuation costs and outplacement services, will range from $1.4 million to $1.5 million. As a result of terminating these employees, we estimate we may incur an impairment charge for certain research laboratory equipment, computer equipment, and furniture and fixtures due to the fact that these assets may no longer be utilized. We estimate we will incur additional costs in connection with the suspension of the SYMMETRY trial, including one-time contract termination costs and fees and other related costs. At this time, we are unable to estimate the amount of impairment or contract termination costs as we are in the process of evaluating our facilities and equipment needs and are in contract termination negotiations with certain of our vendors. Substantially all cash payments under the restructuring are expected to be paid during 2009. Employees directly affected by the restructuring have received notification and will be provided with severance payments. We expect to complete the restructuring in the second quarter of 2009.

We do not anticipate that we will generate product revenue in the foreseeable future, if at all. We expect our continuing operating losses to use cash for operations over the next several years and such cash use may increase from year to year. Based on our current operating plans, we expect our existing funds, including the $16 million upfront license payment under the Roche Agreement that was received in January 2009 and the $10 million operational milestone payment under the GSK Agreement that was received in March 2009, together with research and development reimbursements and approximately $5 million of milestone payments anticipated in connection with certain preclinical and clinical achievements anticipated under the Roche agreement, will be sufficient to fund operations for approximately two years. While we believe that the milestone payments from Roche will be received as forecasted, we have contingency plans in place should the receipt of the milestone payments be delayed or not achieved at all or if clinical progress in our various programs does not progress as expected, which plans focus on the reduction of spending on less critical research and development activities.

There are numerous factors that are likely to affect our spending levels, including the extent of clinical trials and other development activities for STA-9090, our second generation Hsp90 inhibitor, STA-9584, apilimod, CRACM inhibitors in collaboration with Roche, the timing and amount of milestone payments to be received from Roche, the rate of enrollment of patients in clinical trials, the progress of our discovery research and preclinical programs, the impact of potential business development activities and future direction of the elesclomol program, among other factors. In

addition, depending upon the future direction of the elesclomol program, we may also incur additional expenses and may correspondingly receive cost sharing and milestone payments under our agreement with GSK. These variables could result in higher or lower spending levels which could impact the sufficiency of our current funds if we are to continue operations in accordance with our current plans and achieve our intended timelines for development.

We may require significant additional funds earlier than we currently expect in order to conduct additional clinical trials and conduct additional pre-clinical 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 unprecedented turmoil and upheaval characterized by the bankruptcy, failure, collapse or sale of various financial institutions and an unprecedented level of intervention from the United States federal government. These events have generally 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 debt securities, if convertible, 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. We may elect to raise additional funds even before we need them if the conditions for raising capital are favorable.

Cash, Cash Equivalents and Marketable Securities

As of December 31, 2008, we had cash, cash equivalents and marketable securities of $73.6 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. Marketable securities consist of investments in high-grade corporate obligations and United States government agencies that are guaranteed by the United States 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, or SIV's, within our money-market fund investments. We also 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.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities.

Tax Loss Carryforwards

In 2005 and in 2007, we performed analyses to determine if there were changes in ownership, as defined by Section 382 of the Internal Revenue Code, that would limit our ability to utilize certain net

operating loss and tax credit carryforwards. We determined that we experienced a change in ownership, as defined by Section 382, in connection with the acquisition of Principia Associates, Inc. on September 20, 2002, but did not experience a change in ownership upon the effectiveness of our IPO. As a result, the utilization of our federal tax net operating loss carryforwards generated prior to the ownership change is limited. As of December 31, 2008 we have net operating loss carryforwards for U.S. federal tax purposes of approximately $270.6 million, after taking into consideration net operating losses expected to expire unused as a result of this limitation, and the remainder will expire in varying amounts through 2028 unless utilized. In addition, as of December 31, 2008, we have state net operating loss carryforwards of approximately $234.1 million, which will expire through 2012 unless utilized. The utilization of these net operating loss carryforwards may be further limited as we experience future ownership changes as defined in Section 382 of the Internal Revenue Code.

Recent Accounting Pronouncements

In December 2007, the EITF issued EITF Issue No. 07-1, *Accounting for Collaborative Arrangements,* or EITF No. 07-1, which requires collaborators to present the results of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. Further, EITF No. 07-1 clarified that the determination of whether transactions within a collaborative arrangement are part of a vendor-customer (or analogous) relationship subject to EITF No. 01-9, *Accounting for Consideration Given by a Vendor to a Customer (Including a Reseller of the Vendor's Products)*. EITF No. 07-1 is effective for fiscal years beginning on or after December 15, 2008. We do not believe the adoption of EITF No. 07-1 will have a material impact on our overall financial position or results of operations.

Certain Factors That May Affect Future Results of Operations

The Securities and Exchange Commission encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This Annual Report on Form 10-K 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 this Annual Report on Form 10-K.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this Annual Report on Form 10-K or in any document incorporated by reference 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 Annual Report on Form 10-K. 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 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity. As of December 31, 2008, we had cash, cash equivalents and marketable securities of $73.6 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 of 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, or SIV's, 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 year ended December 31, 2008, we had investment income of $1.6 million. If overall interest rates fell by 10% during the year ended December 31, 2008, our interest income would have decreased by less than $0.2 million, assuming consistent investment levels.

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 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is included at the end of this Annual Report on Form 10-K beginning on page F-1.

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

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

1. 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) as of the end of the period covered by this Annual Report on Form 10-K. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their desired control objectives. Based on the evaluation of our disclosure controls and procedures as of December 31, 2008, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

2. Internal Control Over Financial Reporting

(a) Management's Annual Report on Internal Control Over Financial Reporting

Management's Annual Report On Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of

1934, as amended. Our internal control system was designed to provide reasonable assurance to our management and board of directors regarding the preparation and fair presentation of published financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2008. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework. Based on our assessment we believe that, as of December 31, 2008, our internal control over financial reporting is effective at a reasonable assurance level based on those criteria.

Our independent registered public accounting firm has issued its report on the effectiveness of our internal control over financial reporting. This report appears below.

(b) Attestation Report of the Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Synta Pharmaceuticals Corp.

We have audited Synta Pharmaceuticals Corp.'s internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Synta Pharmaceuticals Corp.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

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

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject

to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Synta Pharmaceuticals Corp. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Synta Pharmaceuticals Corp. as of December 31, 2008, and the related consolidated statement of operations, stockholders' equity (deficit) and comprehensive loss, and cash flows for the year then ended and our report dated March 24, 2009 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 24, 2009

(c) Changes in Internal Controls Over Financial Reporting

There were no changes in our internal control over financial reporting, identified in connection with the evaluation of such internal control that occurred during the fourth quarter of our last fiscal year, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Management," "Section 16(a) Beneficial Ownership Reporting Compliance" and "Code of Conduct and Ethics" in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be held on June 10, 2009.

We have adopted a code of conduct and ethics that applies to all of our directors, officers and employees. This code is publicly available on our website at *www.syntapharma.com.* Amendments to the code of conduct and ethics or any grant of a waiver from a provision of the code requiring disclosure under applicable Securities and Exchange Commission and The NASDAQ Stock Market rules will be disclosed in a Current Report on Form 8-K.

Item 11. EXECUTIVE COMPENSATION

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Compensation Discussion and Analysis," "Executive Compensation," "Management—Committees of the Board of Directors and Meetings," "Management—Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report" in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be held on June 10, 2009.

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

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Executive Compensation—Equity Compensation Plan Information" in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be held on June 10, 2009.

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

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Certain Relationships and Related Person Transactions," "Management—The Board of Directors" and "Management—Director Independence" in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be held on June 10, 2009.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Proposal No. 2—Independent Public Accountants" in our Proxy Statement for the 2009 Annual Meeting of Stockholders to be held on June 10, 2009.

PART IV

Item 15. **EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

Item 15(a) The following documents are filed as part of this Annual Report on Form 10-K:

Item 15(a)(1) and (2) The Consolidated Financial Statements beginning on page F-1 are filed as part of this Annual Report on Form 10-K. Other financial statement schedules have not been included because they are not applicable or the information is included in the financial statements or notes thereto.

Item 15(a)(3) Exhibits

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

Exhibit Number	Description of Exhibit
3.1(1)	Restated Certificate of Incorporation of the Registrant. (3.2)
3.2(1)	Restated Bylaws of the Registrant. (3.4)
4.1(1)	Form of Common Stock Certificate. (4.1)
4.2.1(1)	Amended and Restated Investor Rights Agreement, dated December 13, 2002, by and among the Registrant and certain stockholders of the Registrant. (4.2.1)
4.2.2(1)	First Amendment, dated January 11, 2005, to the Amended and Restated Investor Rights Agreement, dated December 13, 2002, by and among the Registrant and certain stockholders of the Registrant. (4.2.2)
4.2.3(1)	Second Amendment, dated January 31, 2007, to the Amended and Restated Investor Rights Agreement, dated December 13, 2002, by and among the Registrant and certain stockholders of the Registrant. (4.2.3)
10.1(1)*	2001 Stock Plan. (10.1)
10.2(2)*	Amended and Restated 2006 Stock Plan. (99.1)
10.2(a)(1)*	Form of incentive stock option agreement under 2006 Stock Plan. (10.2(a))
10.2(b)(1)*	Form of nonqualified stock option agreement under 2006 Stock Plan. (10.2(b))
10.2(c)(1)*	Form of restricted stock agreement under 2006 Stock Plan. (10.2(c))
10.2(d)(1)*	Form of nonqualified stock option agreement for directors under 2006 Stock Plan. (10.2(d))
10.2(e)(1)*	Form of restricted stock agreement for directors under 2006 Stock Plan. (10.2(e))
10.3(3)*	Amended and Restated Director Compensation Policy, effective June 11, 2008. (10.3)
10.4(4)*	Non-Qualified Stock Option Agreement, dated February 27, 2008, by and between the Registrant and Keith R. Gollust. (10.4)
10.5(1)	Duffy Hartwell Limited Partnership Commercial Lease, dated November 4, 1996, by and between Duffy Hartwell Limited Partnership and Shionogi BioResearch Corp., as amended by First Amendment to Commercial Lease, dated August 30, 2006. (10.5)

Exhibit Number	Description of Exhibit
10.5.1(3)	Second Amendment, dated May 27, 2008, to Commercial Lease by and between Duffy Hartwell LLC, as successor in interest to Duffy Hartwell Limited Partnership, and the Registrant, as successor in interest to Shionogi BioResearch Corp., dated November 4, 1996, as amended. (10.1)
10.6(1)	Lease of 125 Hartwell Avenue, Lexington, MA, dated October 26, 1992, by and between Fuji ImmunoPharmaceuticals Corp. and 125 Hartwell Trust, as amended by First Amendment dated January 31, 1993, Second Amendment dated October 1, 1997, Third Amendment dated November 1, 2002, Assignment and Assumption of Lease and Consent of Release by Landlord and Fourth Amendment of Lease, dated July 9, 2004, Fifth Amendment, dated October 22, 2004 and Sixth Amendment, dated August 1, 2005. (10.6)
10.6.1(4)	Seventh Amendment, dated November 26, 2007, to Lease of 125 Hartwell Avenue, Lexington, MA, dated October 26, 1992, by and between the Registrant, as successor-by-assignment, and 125 Hartwell Trust. (10.6.1)
10.6.2(3)	Eighth Amendment, dated June 19, 2008, to Lease of 125 Hartwell Avenue, Lexington, MA, dated October 26, 1992, by and between the Registrant, as successor-by-assignment, and 125 Hartwell Trust. (10.2)
10.7(1)	Lease, dated January 13, 2005, by and between the Registrant and Mortimer B. Zuckerman and Edward H. Linde, Trustees of 91 Hartwell Avenue Trust, as extended on August 14, 2006. (10.7)
10.7.1(4)	First Amendment to Lease, dated as of September 7, 2007, to Lease, dated January 13, 2005, by and between the Registrant and Mortimer B. Zuckerman and Edward H. Linde, Trustees of 91 Hartwell Avenue Trust. (10.7.1)
10.7.2(5)	Second Amendment to Lease, dated as of August 22, 2008, to Lease, dated January 13, 2005, by and between the Registrant and Mortimer B. Zuckerman and Edward H. Linde, Trustees of 91 Hartwell Avenue Trust. (10.1)
10.8(1)	Pinnacle Properties Management, Inc. Standard Form Commercial Lease, dated May 31, 1999, by and between 6-8 Preston Court, L.L.C. and Asiana Pharmaceuticals Corporation, as amended by Amendment to Lease #1, dated July 31, 2000, Amendment to Lease #2, dated November 26, 2001, and Amendment to Lease #3, dated December 2003, and as assigned to the Registrant by Assignment and Assumption of Lease and Landlord's Consent, dated May 25, 2005, and Subordination, Non-Disturbance and Attornment Agreement, dated May 25, 2005. (10.8)
10.9(1)	Master Lease Agreement, dated November 10, 2004, by and between the Registrant and General Electric Capital Corporation, as amended by Letter Agreement, dated June 24, 2005, and as extended by Letter Agreement, dated November 29, 2006. (10.9)
10.9.1(4)	Extension, dated as of June 29, 2007, of Master Lease Agreement, dated November 10, 2004, by and between the Registrant and General Electric Capital Corporation, as amended. (10.9.1)
10.10(1)*	Letter Agreement, dated April 18, 2005, by and between the Registrant and Safi R. Bahcall, Ph.D. (10.13)
10.11(1)*	Letter Agreement, dated October 12, 2002, by and between the Registrant and Dr. Keizo Koya. (10.14)

Exhibit Number	Description of Exhibit
10.12	(1)* Letter Agreement, dated January 22, 2003, by and between the Registrant and Dr. James Barsoum. (10.15)
10.13	(1)* Letter Agreement, dated April 15, 2004, by and between the Registrant and Dr. Jeremy Chadwick. (10.16)
10.14	(1)* Letter Agreement, dated February 19, 2004, by and between the Registrant and Keith Ehrlich. (10.17)
10.15	(1)* Letter Agreement, dated January 14, 2003, by and between the Registrant and Wendy E. Rieder. (10.18)
10.16	(1)* Letter Agreement, dated March 24, 2005, by and between the Registrant and Eric W. Jacobson. (10.19)
10.17	(5)* Letter Agreement, dated July 9, 2008, by and between the Registrant and Michael P. Bailey. (10.2)
10.18	(5)* Severance and Change in Control Agreement, dated August 6, 2008, between the Registrant and Michael P. Bailey. (10.3)
10.19	(6)* Form of Severance and Change in Control Agreement, dated April 28, 2008, between the Registrant and each of James Barsoum, Ph.D., Eric W. Jacobson, M.D., and Keizo Koya, Ph.D. (10.1)
10.20	(6)* Severance and Change of Control Agreement, dated April 28, 2008, between the Registrant and Keith S. Ehrlich. (10.2)
10.21	(1)* Agreement and Release, dated January 14, 2005, by and between the Registrant and Lan Bo Chen, Ph.D. (10.22)
10.22	(1)* Consulting Agreement, dated April 18, 2005, by and between the Registrant and Lan Bo Chen, Ph.D. (10.23)
10.22.1	(4)* Amendment to Consulting Agreement, dated March 23, 2007, by and between the Registrant and Lan Bo Chen, Ph.D. (10.19.1)
10.23	(1)* Form of Indemnification Agreement between the Registrant and its directors and executive officers. (10.26)
10.24	(1) Lease Agreement, dated December 14, 2006, by and between ARE-MA Region No. 24, LLC and the Registrant. (10.27)
10.25	(4)* Summary of bonus arrangements applicable to the Registrant's Named Executive Officers. (10.23)
10.26	(4)** Collaborative Development, Commercialization and License Agreement, dated October 8, 2007, by and between the Registrant and GlaxoSmithKline. (10.24)
10.26.1	(3)** Amendment No. 1, dated June 27, 2008, to Collaborative Development, Commercialization and License Agreement, dated October 8, 2007, by and between the Registrant and GlaxoSmithKline. (10.4)
10.27	** Collaboration and License Agreement, dated December 23, 2008, by and between the Registrant and F. Hoffmann-La Roche Ltd, and its affiliate, Hoffman-La Roche Inc.
21.1	(7) List of Subsidiaries. (21.1)
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.

Exhibit Number	Description of Exhibit
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
31.1	Certification of Principal Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Accounting and Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Principal Executive Officer and the Principal Accounting and Financial Officer under Section 906 of the Sarbanes-Oxley Act of 2002.

* Management contract, compensatory plan or arrangement.

** Confidential portions of these documents have been filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment.

(1) Incorporated by reference from the Registrant's Registration Statement on Form S-1, as amended (Registration No. 333-138894), initially filed with the Securities and Exchange Commission on November 22, 2006.

(2) Incorporated by reference from the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on August 6, 2008 (Registration No. 333-152824).

(3) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008 (File No. 001-33277).

(4) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 001-33277).

(5) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008 (File No. 001-33277).

(6) Incorporated by reference from the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 29, 2008 (File No. 001-33277).

(7) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 001-33277).

SIGNATURES

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

SYNTA PHARMACEUTICALS CORP.

Date: March 26, 2009 By: /s/ SAFI R. BAHCALL, PH.D.

Safi R. Bahcall, Ph.D.
President and Chief Executive Officer

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

Signatures	Title	Date
/s/ SAFI R. BAHCALL, PH.D. Safi R. Bahcall, Ph.D.	President, Chief Executive Officer and Director (principal executive officer)	March 26, 2009
/s/ KEITH S. EHRLICH, C.P.A. Keith S. Ehrlich, C.P.A.	Vice President, Finance and Administration, Chief Financial Officer (principal accounting and financial officer)	March 26, 2009
/s/ KEITH R. GOLLUST Keith R. Gollust	Chairman of the Board	March 26, 2009
/s/ LAN BO CHEN, PH.D Lan Bo Chen, Ph.D	Director	March 26, 2009
/s/ BRUCE KOVNER Bruce Kovner	Director	March 26, 2009
/s/ WILLIAM REARDON, C.P.A. William Reardon, C.P.A.	Director	March 26, 2009
/s/ ROBERT N. WILSON Robert N. Wilson	Director	March 26, 2009

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SYNTA PHARMACEUTICALS CORP.

Years ended December 31, 2008, 2007, and 2006

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Synta Pharmaceuticals Corp.

We have audited the accompanying consolidated balance sheet of Synta Pharmaceuticals Corp. as of December 31, 2008, and the related consolidated statement of operations, stockholders' equity (deficit) and comprehensive loss, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Synta Pharmaceuticals Corp. at December 31, 2008, and the consolidated results of its operations and its cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Synta Pharmaceutical Corp.'s internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 24, 2009, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 24, 2009

Report of Independent Registered Public Accounting Firm

The Board of Directors
Synta Pharmaceuticals Corp.:

We have audited the accompanying consolidated balance sheet of Synta Pharmaceuticals Corp. (the Company) as of December 31, 2007, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive loss, and cash flows for each of the years in the two-year period ended December 31, 2007. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Synta Pharmaceuticals Corp. as of December 31, 2007, and the results of their operations and their cash flows for each of the years in the two-year period ended December 31, 2007 in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standard (SFAS) No. 123R, *Share-Based Payment,* effective January 1, 2006.

/s/ KPMG LLP

Boston, Massachusetts
March 19, 2008

SYNTA PHARMACEUTICALS CORP.

Consolidated Balance Sheets

(in thousands, except share and per share amounts)

	December 31,	
	2008	2007
Assets		
Current assets:		
Cash and cash equivalents	$ 52,045	$ 115,577
Marketable securities	21,518	—
Restricted cash	151	83
Collaboration receivable	16,000	—
Prepaid expenses and other current assets	1,507	1,337
Total current assets	91,221	116,997
Property and equipment, net	5,929	5,576
Other assets	103	76
Total assets	$ 97,253	$ 122,649
Liabilities and Stockholders' (Deficit) Equity		
Current liabilities:		
Accounts payable	$ 3,331	$ 2,488
Accrued contract research costs	12,393	3,517
Other accrued liabilities	2,841	5,667
Capital lease obligations	2,170	2,406
Deferred collaboration revenue	12,588	5,351
Other current liabilities	—	1,343
Total current liabilities	33,323	20,772
Deferred collaboration revenue—long-term	114,415	74,166
Collaboration payable—long-term	6,294	—
Capital lease obligations—long-term	2,012	2,815
Total long-term liabilities	122,721	76,981
Total liabilities	156,044	97,753
Commitments and contingencies (Note 12)		
Stockholders' (deficit) equity:		
Preferred stock, par value $0.0001 per share Authorized: 5,000,000 shares at December 31, 2008 and 2007; no shares issued and outstanding at December 31, 2008 and,2007	—	—
Common stock, par value $0.0001 per share Authorized: 100,000,000 shares at December 31, 2008 and 2007; 33,919,584 and 33,875,942 shares issued and outstanding at December 31, 2008 and 2007, respectively	3	3
Additional paid-in-capital	333,862	324,946
Accumulated other comprehensive income	15	—
Accumulated deficit	(392,671)	(300,053)
Total stockholders' (deficit) equity	(58,791)	24,896
Total liabilities and stockholders' (deficit) equity	$ 97,253	$ 122,649

See accompanying notes to consolidated financial statements.

SYNTA PHARMACEUTICALS CORP.

Consolidated Statements of Operations

(in thousands, except share and per share amounts)

	Years Ended December 31,		
	2008	2007	2006
Collaboration revenues:			
License and milestone revenue	$ 8,513	$ 743	$ —
Cost sharing reimbursements, net	(5,898)	—	—
Total collaboration revenues	2,615	743	—
Operating expenses:			
Research and development	81,581	52,025	50,503
General and administrative	14,742	14,934	8,648
Total operating expenses	96,323	66,959	59,151
Loss from operations	(93,708)	(66,216)	(59,151)
Other income (expense):			
Interest income	1,579	3,257	2,455
Interest expense	(489)	(536)	(574)
Other income, net	1,090	2,721	1,881
Net loss	(92,618)	(63,495)	(57,270)
Convertible preferred stock dividends	—	—	1,859
Convertible preferred stock beneficial conversion feature	—	58,585	—
Net loss attributable to common stockholders	$ (92,618)	$ (122,080)	$ (59,129)
Basic and diluted weighted average common shares outstanding	33,735,579	32,466,006	22,265,242
Basic and diluted net loss attributable to common stockholders per share	$ (2.75)	$ (3.76)	$ (2.66)

See accompanying notes to consolidated financial statements.

SYNTA PHARMACEUTICALS CORP.

Consolidated Statements of Stockholders' Equity (Deficit) and Comprehensive Loss

(in thousands, except share amounts)

	Common stock		Additional paid-in capital	Deferred compensation	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' equity (deficit)	Comprehensive loss
	Shares	Amount						
Balance at December 31, 2005	22,674,420	$ 2	$ 239,029	$ (7,225)	$ (41)	$ (179,288)	$ 52,477	$ (68,788)
Eliminate deferred stock compensation	—	—	(7,225)	7,225	—	—	—	
Convertible preferred stock dividends	—	—	(1,859)	—	—	—	(1,859)	
Forfeitures of restricted common shares	(127,500)	—	—	—	—	—	—	
Issuance of common shares for services	4,875	—	69	—	—	—	69	
Issuance of restricted common shares	12,142	—	—	—	—	—	—	
Exercise of stock options	125	—	2	—	—	—	2	
Compensation expense related to stock options for services	—	—	4,791	—	—	—	4,791	
Unrealized gains on marketable securities	—	—	—	—	43	—	43	43
Net loss	—	—	—	—	—	(57,270)	(57,270)	(57,270)
Balance at December 31, 2006	22,564,062	2	234,807	—	2	(236,558)	(1,747)	(57,227)
Issuance of common shares in IPO, net	5,000,000	—	44,660	—	—	—	44,660	
Conversion of convertible preferred stock	6,278,765	1	41,819	—	—	—	41,820	
Issuance of restricted common shares	15,661	—	—	—	—	—	—	
Repurchase of previously restricted common shares	(29,046)	—	(290)	—	—	—	(290)	
Exercise stock options	51,500	—	136	—	—	—	136	
Forfeitures of restricted common shares	(5,000)	—	—	—	—	—	—	
Issuance of common stock purchase obligation	—	—	(260)	—	—	—	(260)	
Compensation expense related to stock options for services	—	—	5,924	—	—	—	5,924	
Reclassification of vested stock options granted to non-employee consultants to liabilities	—	—	(1,850)	—	—	—	(1,850)	
Unrealized losses on marketable securities	—	—	—	—	(2)	—	(2)	(2)
Net loss	—	—	—	—	—	(63,495)	(63,495)	(63,495)
Balance at December 31, 2007	33,875,942	3	$ 324,946	—	—	(300,053)	24,896	(63,497)
Issuance of restricted common shares	45,242	—	—	—	—	—	—	
Exercise stock options	625	—	1	—	—	—	1	
Forfeitures of restricted common shares	(2,225)	—	—	—	—	—	—	
Compensation expense related to stock options for services	—	—	7,572	—	—	—	7,065	
Reclassification of vested stock options granted to non-employee consultants	—	—	1,343	—	—	—	1,850	
Unrealized gain on marketable securities	—	—	—	—	15	—	15	15
Net loss	—	—	—	—	—	(92,618)	(92,618)	(92,618)
Balance at December 31, 2008	33,919,584	$ 3	$ 333,862	$ —	$ 15	$ (392,671)	$ (58,791)	$ (92,603)

See accompanying notes to consolidated financial statements.

SYNTA PHARMACEUTICALS CORP.

Consolidated Statements of Cash Flows

(in thousands)

	Years Ended December 31,		
	2008	2007	2006
Cash flows from operating activities:			
Net loss	$ (92,618)	$ (63,495)	$ (57,270)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Stock-based compensation expense	7,572	5,417	4,791
Depreciation and amortization	2,717	3,351	3,655
Changes in operating assets and liabilities:			
Restricted cash	(68)	457	(83)
Prepaid expenses and other current assets	(170)	(1,074)	173
Other assets	(27)	56	1
Accounts payable	840	(144)	(729)
Accrued contract research costs	8,876	465	(2,489)
Other accrued liabilities	(2,841)	3,389	(1,034)
Deferred collaboration revenue	31,486	78,800	—
Collaboration payable	6,294	—	—
Net cash (used in) provided by operating activities	(37,939)	27,222	(52,985)
Cash flows from investing activities:			
Purchases of marketable securities	(21,503)	(15,014)	(118,204)
Sales and maturities of marketable securities	—	28,149	143,358
Purchases of property and equipment	(2,184)	(2,350)	(1,580)
Net cash (used in) provided by investing activities	(23,687)	10,785	23,574
Cash flows from financing activities:			
Proceeds from issuances of common stock and exercise of common stock warrants, net of transaction costs	—	44,660	—
Proceeds from issuance of convertible preferred stock, net		—	39,961
Proceeds from exercise of stock options	1	136	2
Repurchase of restricted common stock	—	(290)	—
Proceeds from sale—leaseback of property and equipment	880	1,994	1,412
Payment of capital lease obligations	(2,787)	(2,617)	(2,086)
Net cash (used in) provided by financing activities	(1,906)	43,883	39,289
Net (decrease) increase in cash and cash equivalents	(63,532)	81,890	9,878
Cash and cash equivalents at beginning of period	115,577	33,687	23,809
Cash and cash equivalents at end of period	$ 52,045	$115,577	$ 33,687
Supplemental disclosure of noncash operating, investing and financing activities:			
Collaboration receivable for upfront license payment	$ 16,000	—	—
Acquisition of equipment under capital leases	$ 1,748	$ 2,338	$ 1,412
Convertible preferred stock beneficial conversion charge	—	$ 58,585	—
Convertible preferred stock dividends	—	—	$ 1,859
Conversion of preferred stock	—	$ 41,820	—
Issuance of common stock purchase obligation	—	$ 260	—
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ 489	$ 536	$ 574

See accompanying 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 Food and Drug Administration (FDA) and other government regulations.

In October 2007, the Company and GlaxoSmithKline (GSK) entered into a collaborative development, commercialization and license agreement for elesclomol (the GSK Agreement). Under the terms of the GSK Agreement, the Company has received a total of $130 million in non-refundable payments, including the $80 million upfront payment in November 2007, $40 million in operational milestones in 2008 and $10 million in an operational milestone in March 2009 (see Note 9).

In December 2008, the Company and Hoffman-La Roche (Roche) entered into a collaborative license agreement for the CRACM inhibitor program (the Roche Agreement). Under the terms of the Roche Agreement, the Company received a non-refundable upfront license payment of $16 million in January 2009 (see Note 10).

On February 26, 2009, the Company announced that it was suspending all clinical development of its lead drug candidate, elesclomol. On March 12, 2009, the Company committed to a restructuring that consisted primarily of a workforce reduction of approximately 90 positions, to a total of approximately 130 positions to better align its workforce to its revised operating plans following the suspension of the SYMMETRY clinical trial (see Note 15).

The Company has incurred significant operating losses since its inception and, as a result, at December 31, 2008 had an accumulated deficit of $392.7 million. Operations have been funded principally through the sale of common stock and convertible preferred stock, the upfront payment and operational milestone payments from GSK, and capital leases. At December 31, 2008, the Company had approximately $89.6 million in cash, cash equivalents, marketable securities and collaboration payments receivable. In January 2009, the Company achieved a $10 million operational milestone under the GSK Agreement that was paid by GSK in March 2009.

Based on the Company's current operating plans, the Company expects its existing funds, including the $16 million upfront license payment under the Roche Agreement that was received in January 2009 and the $10 million operational milestone payment under the GSK Agreement that was received in March 2009, together with research and development reimbursements and approximately $5 million of milestone payments anticipated in connection with certain preclinical and clinical achievements anticipated under the Roche agreement, will be sufficient to fund operations for approximately two years. While the Company believes that the milestone payments from Roche will be received as forecasted, it has contingency plans in place should the receipt of the milestone payments be delayed or not achieved at all or if clinical progress in its various programs does not progress as expected, which plans focus on the reduction of spending on less critical research and development activities.

(1) Nature of Business (Continued)

However, the Company may require significant additional funds earlier than it currently expects in order to conduct additional clinical trials and continue to fund its operations. There can be no assurances, however, that additional funding will be available on favorable terms, or at all.

(2) Summary of Significant Accounting Policies

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.

Reclassification in the Preparation of Financial Statements

Certain amounts in prior years' financial statements have been reclassified to conform to the current presentation. The reclassifications had no effect on the reported net loss.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States 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 long-term contract accruals, recoverability of long-lived and deferred tax assets, measurement of stock-based compensation, and the period of performance under the GSK Agreement and the Roche Agreement. 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's cash is deposited in a highly rated financial institution in the United States. Cash equivalents include a short-term U.S. Treasury money market fund. The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase 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. Declines in interest rates, however, would reduce future investment income.

Marketable Securities

The Company considers its marketable securities available-for-sale in accordance with SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Marketable securities consist of investments in high-grade corporate obligations that are guaranteed by the United States government, and 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

(2) Summary of Significant Accounting Policies (Continued)

the consolidated balance sheets. Marketable securities are stated at fair value, including accrued interest, with their unrealized gains and losses included as a component of accumulated other comprehensive income (loss), which is a separate component of stockholders' equity (deficit), until such gains and losses are realized. The fair value of these securities is based on quoted market prices. If a decline in value is considered other-than-temporary, based on available evidence, the unrealized loss is transferred from accumulated other comprehensive income (loss) to the consolidated statement of operations. Realized gains and losses are determined on the specific identification method.

During the years ended December 31, 2008, 2007 and 2006, the Company recorded no realized gains and losses on marketable securities and there were no charges to write down marketable securities in 2008, 2007 and 2006.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include cash equivalents, marketable securities, and capital lease obligations, approximate their fair values.

Property and Equipment

Property, equipment and software is carried at cost and depreciated using the straight-line method over the estimated useful lives of the related assets, which range from three to five years. Leasehold improvements are amortized over the lesser of the lease term or estimated useful life. Repairs and maintenance costs are expensed as incurred.

Research and Development Costs

Research and development costs are expensed as incurred in accordance with SFAS No. 2, *Accounting for Research and Development Costs.* Research and development costs are comprised of costs incurred in performing research and development activities, including internal costs for salaries, benefits, facilities, research-related overhead and stock compensation, and external costs for payments to third party contract research organizations, investigative sites and consultants in connection with the Company's preclinical and clinical programs, costs associated with drug formulation and supply of drugs for clinical trials, and other external costs.

Patents

Costs to secure and defend patents are expensed as incurred and are classified as general and administrative expense in the Company's consolidated statements of operations. Patent expenses were approximately $1.9 million, $2.5 million, and $1.6 million for the years ended December 31, 2008, 2007 and 2006, respectively.

Income Taxes

The Company uses the liability method to account for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes*, and in accordance with the Financial Accounting Standards Board (FASB) Interpretation No. 48, *Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109* (FIN 48), which became effective January 1, 2007. Deferred tax assets and liabilities are determined based on the expected future tax consequences of temporary differences

(2) Summary of Significant Accounting Policies (Continued)

between the Company's consolidated financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. A valuation allowance is provided to reduce the deferred tax assets to the amount that will more likely than not be realized.

The Company adopted the provisions of FIN 48 on January 1, 2007. FIN 48 clarifies the recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 also provides guidance on recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. As of December 31, 2008, the Company had no items that were considered to be uncertain tax items or accrued interest or penalties related to uncertain tax positions.

The tax years 2006 through 2008 remain open to examination by the major taxing jurisdictions to which the Company is subject.

Impairment of Long-Lived Assets

The Company accounts for the impairment and disposition of long-lived assets in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, or SFAS No. 144. In accordance with SFAS No. 144, management assesses the potential impairments of its long-lived assets whenever events or changes in circumstances indicate that an asset's carrying value may not be recoverable. If the carrying value exceeds the undiscounted future cash flows estimated to result from the use and eventual disposition of the asset, the Company writes down the asset to its estimated fair value. Management believes that no long-lived assets were impaired as of December 31, 2008 and 2007.

Revenue Recognition

Collaboration and License Agreements

The Company's principal sources of revenue may include up front license payments, development milestones, reimbursement of research and development costs, profit sharing payments, sales milestones and royalties from its collaborations. The Company recognizes revenue from these sources in accordance with Staff Accounting Bulletin (SAB) 104, *Revenue Recognition*, or SAB 104, Emerging Issues Task Force (EITF) No. 99-19, *Reporting Revenue Gross as a Principal Versus Net as an Agent*, or EITF No. 99-19, EITF No. 00-21, *Revenue Arrangements with Multiple Deliverables*, or EITF No. 00-21, and EITF No. 01-09, *Accounting for Consideration Given by a Vendor to a Customer (Including a Reseller of the Vendor's Products)*, or EITF No. 01-09. The application of EITF No. 00-21 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 respective collaborations in accordance with the provisions of EITF No. 00-21 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

(2) Summary of Significant Accounting Policies (Continued)

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 nonrefundable and that the Company's collaborators are contractually obligated to pay to the Company.

Collaborative Development, Commercialization and License Agreement with GSK

In October 2007, the Company and GSK entered into the GSK Agreement, as amended in June 2008, for elesclomol, a novel injectable, small molecule compound that triggers apoptosis, or programmed cell death, in cancer cells, which the Company believes has potential for the treatment of a broad range of cancer types. The GSK Agreement consists of the following key funding streams: an upfront license payment, product development milestones, reimbursements of certain development costs, sales milestones, profit sharing payments and product royalty payments.

The $80 million non-refundable upfront license payment the Company received from GSK in November 2007, together with the $260,000 fair value of an option to require GSK to purchase $25 million of the Company's common stock, is being recognized ratably using the time-based model over the estimated performance period which has been defined as the 15-year period through the earliest expiration date of the related patents, which the Company estimates to be the effective life of the GSK Agreement. There has been no change to this estimate to date. The Company is also recognizing product development milestones as collaboration revenue using the time-based model over the same performance period through November 2022. The Company recognizes as revenue on the date the milestone is achieved the portion of the milestone payment equal to the applicable amount of the performance period that has elapsed as of the date the milestone is achieved, with the balance being deferred and recognized on a straight-line basis over the remaining development period. In the year ended December 31, 2008, the Company achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and $5 million in non-refundable operational milestones related to the development of elesclomol in other cancer indications. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In the years ended December 31, 2008 and 2007, the Company recognized $8.4 million and $0.7 million, respectively, of license and milestone revenue under the GSK Agreement. In January 2009, the Company achieved a $10 million non-refundable operational milestone under the GSK Agreement, related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

(2) Summary of Significant Accounting Policies (Continued)

Reimbursements of development costs to the Company by GSK are recorded as cost sharing revenue in the period in which the related development costs are incurred. Reimbursements by the Company to GSK for costs GSK incurs under the development program are recorded as a reduction of cost sharing revenue in the period in which the costs are incurred by GSK in accordance with EITF No. 01-09. Reimbursement of GSK's costs in an amount in excess of collaboration revenues otherwise recognized by the Company in a reporting period may result in negative revenue. Based on the guidance of EITF No. 99-19, the Company has determined that it is acting as a principal under the GSK Agreement and, as such, records these amounts as collaboration revenue. In the year ended December 31, 2008, the Company recognized, as a reduction to revenue, $5.9 million of net cost sharing reimbursements to GSK under the GSK Agreement as the Company is solely responsible for funding 100% of the development costs of elesclomol for the treatment of metastatic melanoma until a specified limit of expenses has been incurred, after which continuing development costs are shared by GSK with the Company responsible for a modest share of the costs.

Profit sharing payments are based upon a formula that provides for a range of 40-50% of net profits earned on U.S. sales of products included in the GSK Agreement. Royalty revenues are based upon a percentage of net sales in non-U.S. territories. Profit sharing payments and royalties from the sales of products included in the GSK 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 collectability is reasonably assured.

Collaborative License Agreement with Roche

In December 2008, the Company and Roche entered into the Roche Agreement to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The Roche Agreement consists of the following key funding streams: an upfront license payment, product development milestones, reimbursements of certain research and development costs, sales milestones and product royalty payments.

The $16 million non-refundable upfront license payment the Company received from Roche in January 2009 is being recognized ratably using the time-based model over the estimated performance period which has been defined as the 3.5-year period through the estimated date of completion of a phase 2a clinical trial for the first licensed compound. In the year ended December 31, 2008, the Company recognized $0.1 million of license revenue under the Roche Agreement. Reimbursements of research and development costs to the Company by Roche will be recorded as cost sharing revenue in the period in which the related research and development costs are incurred. Development milestones will be recognized as collaboration revenue using the time-based model over the same performance period through mid-2012.

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 collectability is reasonably assured.

(2) Summary of Significant Accounting Policies (Continued)

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 December 31, 2008, total deferred collaboration revenue was approximately $127.0 million, of which $12.6 million is current and will be recognized as revenue during the next 12 months.

Stock-Based Compensation

Effective January 1, 2006, the Company adopted SFAS No. 123(R), *Share-Based Payment*, or SFAS No. 123(R), using the modified prospective method of transition for employee stock option awards granted after January 17, 2005 (valued using the fair value method), and using the prospective method for awards granted prior to January 17, 2005 (valued using the minimum value method). Therefore, compensation cost recognized in the years ended December 31, 2008, 2007 and 2006 includes: (a) compensation costs related to the vesting of employee stock options granted after January 17, 2005 but prior to January 1, 2006, based on the grant date fair value method estimated in accordance with the provisions of SFAS No. 123 adjusted for estimated forfeitures (b) compensation costs related to the continued vesting of nonvested restricted stock awards granted prior to January 1, 2006, and (c) compensation costs for all share-based payments granted or modified subsequent to January 1, 2006, based on the provisions of SFAS No. 123(R).

Prior to the adoption of SFAS No. 123(R), the Company presented its unamortized portion of deferred compensation cost for nonvested stock options in the consolidated statement of stockholders' equity (deficit) and comprehensive loss with a corresponding credit to additional paid-in capital. Upon the adoption of SFAS No. 123(R), these amounts were offset against each other. Under SFAS No. 123(R), an equity instrument is not considered to be issued until the instrument vests. As a result, compensation costs are recognized over the requisite service period with an offsetting credit to additional paid-in capital, and the deferred compensation balance of $7.2 million at January 1, 2006 was netted against additional paid-in capital during the first quarter of 2006.

For the years ended December 31, 2008, 2007 and 2006, 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:

	Years ended December 31,		
	2008	2007	2006
Risk-free interest rate	3.21%	4.6%	4.63%
Expected life in years	6.25 years	6.25 years	6.25 years
Volatility	70%	75%	75%
Expected dividend yield	—	—	—

(2) Summary of Significant Accounting Policies (Continued)

The Company uses the Black-Scholes option pricing model as 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 is based on historical data from several public biotechnology companies similar in size and value to the Company that also have stock compensation plans with similar terms. The Company will continue using historical volatility and other similar public entity volatility information until historical volatility of the Company 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 will be re-evaluated at least annually and the forfeiture rate will be 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 represents the period of time that options granted are expected to be outstanding. Since January 1, 2006 the Company has used the simplified method for determining the expected lives of options.

For awards with graded vesting, the Company allocates compensation costs under SFAS No. 123(R) 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 in accordance with the provisions of SFAS No. 123, *Accounting for Stock-Based Compensation*, or SFAS No. 123, and EITF No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees, or in Conjunction with Selling Goods or Services*, which requires valuing and remeasuring such stock options to the current fair value until the performance date has been reached.

As part of its preparation of its quarterly financial statements for the three months ended March 31, 2008, the Company discovered that it had erroneously accounted for certain of its non-employee stock options during the last three quarters of 2007 under EITF Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock,* which may require stock options held by certain non-employee consultants to be accounted for as liabilities. Under this accounting it had reclassified approximately $1.9 million from additional-paid-in capital to liabilities in the second quarter of 2007 and subsequently during the year adjusted the fair value of the liability for changes in the market price of its common stock, resulting in a $553,000 credit to stock-based compensation expense for the year. In accordance with SAB No. 99, *Materiality*, and SAB No. 108, the Company assessed the materiality of this error on its financial statements for the year ended December 31, 2007, using both the roll-over method and iron-curtain method as defined in SAB No. 108. The Company concluded the effect of this error was not material to its financial statements for the year ended December 31, 2007 and, as such, these financial statements are not materially misstated. The Company also concluded that providing for the correction of the error in 2008 would not have a material effect on its financial statements for the year ended December 31, 2008. Accordingly, the Company recorded a charge to stock-based compensation of $553,000 and a reclassification of approximately $1.9 million from liabilities to additional-paid-in-capital in the three months ended March 31, 2008 to correct this error.

(2) Summary of Significant Accounting Policies (Continued)

The following table outlines the details of recognized and unrecognized expense for these stock-based compensation arrangements (in thousands):

	Stock compensation for the years ended December 31,			Unrecognized stock compensation expense as of December 31, 2008
	2008	2007	2006	
Employee stock options	$5,279	$4,045	$2,752	$ 9,475
Repriced employee stock options	169	139	407	—
Employee options issued below fair value	8	10	60	17
Non-employee stock options	588	(444)	272	—
Restricted stock	1,528	1,667	1,300	312
	$7,572	$5,417	$4,791	$ 9,804

Stock-based compensation expense is allocated as follows (in thousands):

	Years ended December 31,		
	2008	2007	2006
Research and development	$5,779	$3,902	$3,372
General and administrative	1,793	1,515	1,419
Total	$7,572	$5,417	$4,791

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 will receive a tax deduction. The Company does not record tax benefits related to ISOs unless and until a qualifying disposition occurs. 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 Income (Loss)

SFAS No. 130, *Reporting Comprehensive Income*, requires that all components of comprehensive income (loss) be disclosed in the consolidated financial statements. Comprehensive income (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.

Segment Reporting

The Company has adopted SFAS No. 131, *Disclosure About Segments of an Enterprise and Related Information,* which requires companies to report selected information about operating segments, as well

(2) Summary of Significant Accounting Policies (Continued)

as enterprise-wide disclosures about products, services, geographical area, and major customers. 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 Net Loss Per Common Share

Net loss per share is computed based on the guidance of SFAS No. 128, *Earnings Per Share*, requiring companies to report both basic net loss per common share, which is computed using the weighted average number of common shares outstanding during the period, and diluted net loss per common share, which 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. However, for all periods presented, 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.

The following table summarizes securities outstanding, prior to the application of the treasury stock method, as of each of the periods presented which were not included in the calculation of diluted net loss per share as their inclusion would be anti-dilutive.

	December 31		
	2008	2007	2006
Common stock options	4,691,246	3,844,027	3,044,343
Nonvested restricted common stock	172,620	157,832	291,073
Convertible preferred stock	—	—	2,092,931

Recent Accounting Pronouncements

In December 2007, the EITF issued EITF Issue No. 07-1, *Accounting for Collaborative Arrangements,* or EITF No. 07-1, which requires collaborators to present the results of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. Further, EITF No. 07-1 clarified that the determination of whether transactions within a collaborative arrangement are part of a vendor-customer (or analogous) relationship subject to EITF No. 01-9, *Accounting for Consideration Given by a Vendor to a Customer (Including a Reseller of the Vendor's Products)*. EITF No. 07-1 is effective for fiscal years beginning on or after December 15, 2008. The Company does not believe the adoption of EITF No. 07-1 will have a material impact on its overall financial position or results of operations.

(3) Cash, Cash Equivalents and Marketable Securities

A summary of cash and cash equivalents and available-for-sale marketable securities held by the Company as of December 31, 2008 and 2007 is as follows:

	December 31, 2008			
	Cost	Unrealized gains	Unrealized losses	Fair value
	(in thousands)			
Cash and cash equivalents:				
Cash and money market funds	$52,045	—	—	$52,045
Marketable securities:				
Corporate debt securities:				
Due within 1 year	8,490	9	—	8,499
U.S. sponsored entities:				
Due within 1 year	13,013	6	—	13,019
Total marketable securities	21,503	15	—	21,518
Total cash, cash equivalents and marketable securities	$73,548	$ 15	$ —	$73,563

	December 31, 2007			
	Cost	Unrealized gains	Unrealized losses	Fair value
	(in thousands)			
Cash and cash equivalents:				
Cash and money market funds	$115,577	$ —	$ —	$115,577

(4) Fair Value Measurements

The Company adopted SFAS No. 157, *Fair Value Measurements,* or SFAS No. 157, on January 1, 2008. SFAS No. 157defines and establishes a framework for measuring fair value and expands disclosure about fair value measurements. The standard creates a fair value hierarchy which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are 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 December 31, 2008, all of the Company's financial assets that were subject to fair value measurements were valued using observable inputs and the Company had no financial liabilities that were subject to fair value measurement. 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. The Company's financial assets valued based on Level 2 inputs consisted of high-grade commercial paper and government-agency bonds that are guaranteed by the U.S. government.

(5) Property and Equipment

Property and equipment consist of the following at December 31:

	2008	2007
	(in thousands)	
Laboratory equipment	$ 12,093	$ 10,110
Leasehold improvements	4,667	4,238
Computers and software	2,192	1,961
Furniture and fixtures	1,105	791
	20,057	17,100
Less accumulated depreciation and amortization	(14,128)	(11,524)
	$ 5,929	$ 5,576

Depreciation and amortization expenses of property and equipment, including equipment purchased under capital leases, were approximately $2.7 million, $3.4 million and $3.7 million for the years ended December 31, 2008, 2007 and 2006, respectively. The net book value and accumulated depreciation of equipment under capital lease was $3.8 million and $7.4 million, respectively, at December 31, 2008, and $4.2 million and $5.3 million, respectively, at December 31, 2007.

(6) Stockholders' Equity

Reverse Stock Split and Capital Stock—Authorized Shares

In January 2007, the board of directors and the stockholders of the Company approved (i) a 1-for-4 reverse stock split, which was effected on February 2, 2007, subject to a reduction for fractional shares that were paid for in cash, (ii) an adjustment of the authorized common shares to 100,000,000 and the authorized preferred shares to 5,000,000, which became effective upon the completion of the IPO, and (iii) an adjustment in the number of common shares reserved under the 2006 Stock Plan to 2,500,000.The reverse stock split did not alter the par value of the common stock and the preferred stock, which is $0.0001 per share, or modify any voting rights or other terms of the common stock

Each common stockholder is entitled to one vote for each share of stock held. The common stock will vote together with all other classes and series of stock of the Company as a single class on all actions to be taken by the Company's stockholders. Each share of common stock is entitled to receive dividends, as and when declared by the Company's board of directors.

The Company has never declared cash dividends on its common stock and does not expect to do so in the foreseeable future.

Initial Public Offering

In February 2007, the Company raised $50.0 million in gross proceeds from the sale of 5,000,000 shares of its common stock in the Company's IPO at $10.00 per share. The net offering proceeds after deducting approximately $5.3 million in expenses for underwriters' discounts, fees and commissions, legal, accounting, printing, listing and filing fees, and miscellaneous expenses were approximately $44.7 million

(6) Stockholders' Equity (Continued)

Convertible Preferred Stock

In June 2006, the Company sold 8,000,000 shares of its Series A Convertible Preferred Stock (the Preferred Stock) at a price of $5.00 per share resulting in gross proceeds of $40 million. The Preferred Stock accrued a cumulative annual dividend of 8% of its purchase price, and was automatically convertible into shares of the Company's common stock upon completion of an IPO. The number of shares of common stock into which each share of Preferred Stock was convertible was determined by dividing the Preferred Stock purchase price plus all accrued dividends by the lesser of $20.00 or 66.6667% of the offering price to the public of the IPO.

In February 2007, all outstanding shares of the Preferred Stock and $1.9 million in accumulated dividends on the Preferred Stock were converted into 6,278,765 shares of common stock upon the completion of the IPO.

In accordance with EITF No. 98-5, *Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios,* and EITF No. 00-27, *Application of Issue No. 98-5 to Certain Convertible Instruments,* the Company recorded a non-cash beneficial conversion charge of approximately $58.6 million in February 2007 in connection with the contingent adjustable conversion feature of the Preferred Stock.

(7) Stock Plans

In March 2006, the Company terminated its 2001 Stock Plan and adopted the 2006 Stock Plan. The 2006 Stock Plan provides for the grant of incentive stock options, nonstatutory stock options and nonvested stock to employees, officers, directors and consultants to the Company. A total of 5,100,000 shares of common stock have been reserved for issuance under the 2006 Stock Plan. In January 2009, the number of shares of common stock reserved for issuance under the 2006 Stock Plan was increased from 3,800,000 to 5,100,000 pursuant to 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. The increase was ratified by the board of directors in February 2009. 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 or 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 generally vest over four years.

As of December 31, 2008, under its 2001 Stock Plan, the Company had options outstanding to purchase 2,526,913 shares of its common stock and had outstanding 137,500 restricted shares of common stock and had no shares available for future issuance.

As of December 31, 2008, under its 2006 Stock Plan, the Company had options outstanding to purchase 2,164,333 shares of its common stock, had outstanding 35,120 restricted shares of common stock and had available 1,564,847 shares available for future issuance.

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 officers, other employees and non-employee directors. Restricted stock awards are subject to

(7) Stock Plans (Continued)

forfeiture if employment terminates during the prescribed retention period. The remaining unrecognized compensation expense on restricted stock at December 31, 2008 was $312,000. The weighted average period over which the balance is expected to be recognized is 1.5 years. Vesting may accelerate, with respect to restricted shares issued to certain officers and other employees, upon the FDA's approval of the Company's first new drug application, or NDA. Restricted shares issued to non-employee directors vest over the service period.

During 2008, the Company sold and issued 25,000 restricted shares of common stock to a newly hired officer at par value. These shares vest 50% on the second anniversary of the date of award and the remaining 50% vest on the third anniversary of the date of award.

During 2008, the Company sold and issued a total of 20,242 shares of restricted stock at par value to certain members of its board of directors in connection with their annual director fees. These restricted shares vest over the service period.

General Option Information

The following table summarizes stock option activity during the year ended December 31, 2008:

	Shares available for grant	Shares	Weighted average exercise price	Weighted average remaining contractual life (years)	Aggregate intrinsic value
Outstanding at January 1	1,415,746	3,844,027	$ 11.22		
Options granted(1)	(1,407,002)	1,361,760	8.48		
Options exercised	—	(625)	2.00		
Options cancelled(1)	256,103	(513,916)	11.08		
Additional shares reserved	1,300,000	—	—		
Outstanding at December 31	1,564,847	4,691,246	$ 10.41	6.70	$500,365
Exercisable at December 31		2,887,376	$ 11.36	5.38	$475,533

(1) Shares available for grant include stock options and awards of restricted stock.

The aggregate intrinsic value of all options outstanding and exercisable at December 31, 2008 was based on a closing stock price of $6.12.

The weighted-average grant date fair values of options granted during the years ended December 31, 2008, 2007 and 2006 were $5.47, $6.11 and $9.80, respectively.

The total intrinsic value of options exercised during the years ended December 31, 2008, 2007 and 2006 was approximately $4,000, $366,000 and zero, respectively

As of December 31, 2008, the total amount of unrecognized stock-based compensation expense was $9.8 million, which will be recognized over a weighted average period of 2.7 years.

Included in the Company's stock options outstanding at December 31, 2008 were 279,055 options issued to non-employee consultants with a weighted average exercise price of $8.80 of which 278,976 were vested. The compensation expense is recorded over the respective vesting periods and is subject to

(7) Stock Plans (Continued)

remeasurement prior to vesting, whereby the Company remeasures the fair value of the options at the end of each reporting period. Changes in the fair value may result in an expense or a credit in each reporting period. Compensation expense related to these options was approximately $588,000, including the $553,000 correction referred to in Note 2, $(444,000), and $272,000 for the years ended December 31, 2008, 2007 and 2006, respectively.

General Restricted Shares Information

The following table summarizes unvested restricted shares during the year ended December 31, 2008:

	2008	
	Shares	Weighted average grant date fair value
Outstanding at January 1	157,832	$ 20.05
Granted	45,242	7.56
Vested	(28,229)	10.50
Cancelled	(2,225)	8.30
Outstanding at December 31	172,620	$ 18.49

(8) Other Accrued Liabilities

Other accrued liabilities consist of the following at December 31:

	2008	2007
	(in thousands)	
Compensation and benefits	$ 759	$3,165
Professional fees	1,311	1,721
Other	771	781
	$2,841	$5,667

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

In October 2007, as amended in June 2008, the Company and GSK entered into the GSK Agreement for elesclomol. Under the terms of the agreement, the companies will jointly develop and commercialize elesclomol in the United States, and GSK will have exclusive responsibility for the development and commercialization of elesclomol outside the United States. Pursuant to the agreement, the Company received a non-refundable upfront license payment of $80 million in November 2007. The Company is also eligible to receive potential operational, clinical and regulatory milestone payments from GSK of up to $585 million, which include both payments for operational progress, such as trial initiation and enrollment, and payments for positive clinical and regulatory outcomes, such as regulatory approval. Of the $585 million in potential payments, $145 million are related to the development in metastatic melanoma and $440 million are related to the development in other cancer indications. In addition, the Company is eligible to receive up to $300 million in potential

(9) Collaborative Development, Commercialization and License Agreement with GSK (Continued)

commercial milestone payments from GSK based on achieving certain net sales thresholds. In the year ended December 31, 2008, the Company achieved $35 million in non-refundable operational milestones related to the development of elesclomol for the treatment of metastatic melanoma and $5 million in non-refundable operational milestones related to the development of elesclomol in other cancer indications. The corresponding milestone payments were received from GSK in the fourth quarter of 2008. In January 2009, the Company achieved a $10 million non-refundable operational milestone under the GSK Agreement, related to the development of elesclomol for the treatment of metastatic melanoma, which was paid by GSK in March 2009.

Under the GSK Agreement, the total worldwide development costs for elesclomol, including development in metastatic melanoma, are shared according to an agreed targeted percentage, which represents for the Company a modest share of total costs. This cost share is realized by the Company over time through both direct cost reimbursement payments and operational milestone payments.

The GSK Agreement specifies an initial period during which the Company is solely responsible for all development costs, up to an agreed-upon limit, associated with specific development activities related to seeking FDA approval of elesclomol for the treatment of metastatic melanoma, whether incurred by the Company or GSK. Also during this period, GSK is responsible for certain operational milestone payments to the Company in the amount of up to $50 million. Costs may be incurred by GSK during this period that are related to the development of elesclomol in metastatic melanoma. Such costs are the responsibility of the Company and have been recognized as a reduction of revenue under the GSK collaboration in the statement of operations; however, these costs are not required to be paid to GSK until after the final completion of the SYMMETRY trial, as defined in the GSK Agreement. Following the initial period, when total melanoma development costs have exceeded the pre-specified limit, additional costs incurred for the program will no longer be the sole responsibility of the Company and will be shared by GSK in accordance with the agreed targeted percentage defined in the GSK Agreement. Depending upon the future direction of the elesclomol program, the Company may be eligible for cost sharing payments under the GSK Agreement. In addition to development in metastatic melanoma, the Company also funds early clinical development of elesclomol in two other cancer indications. Satisfactory completion of these initial trials would result in certain milestone payments from GSK.

In the United States, the Company's share of the operating profits and losses from the commercialization and sales of elesclomol over the life of the product will range from 40-50%, with the percentage increasing as the level of annual sales increases. Prior to commercialization, the Company is responsible for funding 40% of pre-commercialization costs in the United States. The Company may elect not to participate in co-commercialization, in which case the Company would earn royalties in lieu of profit sharing. Outside of the United States, the Company will receive double-digit tiered royalties.

Under the GSK Agreement, GSK may, subject to the agreement of the Company, purchase up to $45 million of the Company's common stock in two separate tranches upon the achievement of specified development and regulatory milestones. In the first tranche, GSK would be obligated to buy $25 million of the Company's common stock at the sole discretion of the Company. The per share purchase price would be at a specified premium. The Company attributed $260,000 of value to this option to require GSK to purchase its common stock. The second tranche of $20 million of common stock would be subject to the agreement of both the Company and GSK. The per share purchase price would be at a specified premium.

(9) Collaborative Development, Commercialization and License Agreement with GSK (Continued)

GSK may terminate the GSK Agreement upon not less than three months' written notice at any time prior to the date of the first commercial sale of elesclomol and not less than six months' written notice at any time on and after such date. The Company is currently working with GSK to evaluate the data from the SYMMETRY trial to determine if development of elesclomol should continue or if the program should be terminated. Should GSK elect to terminate the partnership, all rights to the elesclomol program would be returned to the Company and the Company would be free to develop elesclomol alone or with another partner. In such case, the Company would owe a small royalty to GSK on future sales of elesclomol. To date, GSK has not notified the Company of any intent to terminate the GSK Agreement.

(10) Collaborative License Agreement with Roche

In December 2008, the Company and Roche entered into the Roche Agreement to discover, develop, and commercialize small-molecule drugs targeting CRACM channels. The goal is to develop a novel category of oral, disease-modifying agents for the treatment of rheumatoid arthritis, asthma, chronic obstructive pulmonary disease, or COPD, allergy, transplant rejection, and other autoimmune diseases and inflammatory conditions.

Under the terms of the agreement, Roche will fund research to be conducted by the Company during an initial two-year research period, which may be extended for additional one year terms by mutual agreement of the parties. Roche will receive worldwide rights to develop and commercialize certain products identified prior to the end of this research period. The Company retains co-development rights by conducting preclinical development and early clinical trials, and co-promotion rights in the United States in indications other than rheumatoid arthritis. All preclinical, clinical, and commercial costs will be paid by Roche.

Pursuant to the agreement, the Company received a non-refundable upfront license payment of $16 million in January 2009. Roche will pay all of the Company's research costs, with a minimum of $9 million in committed research support, and all of the Company's preclinical and clinical development costs for compounds nominated for clinical development. 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. In addition, all commercial costs will be paid by Roche. 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.

(11) Income Taxes

Differences between the actual tax benefit and tax benefit computed using the United States federal income tax rate is as follows:

	Years ended December 31		
	2008	2007	2006
	(in thousands)		
Income tax benefit at statutory rate	$(31,497)	$(21,588)	$(19,472)
Stock-based compensation	1,852	716	579
Tax credits	(2,314)	(1,647)	(1,743)
Other	(141)	42	40
Increase in valuation allowance	32,100	22,477	20,596
Income tax benefit	$ —	$ —	$ —

The effects of temporary differences that give rise to significant portions of deferred tax assets and deferred tax liabilities at December 31, are presented below:

	2008	2007
	(in thousands)	
Deferred tax assets:		
Federal and state net operating loss carryforwards	$ 106,670	$ 103,359
Federal and state research and experimentation credits	11,821	9,886
Deferred revenue	29,867	—
Depreciation and amortization	2,805	2,875
Deferred compensation	5,561	4,943
Other	57	513
Deferred tax assets	156,781	121,576
Less valuation allowance	(156,781)	(121,576)
Net deferred tax assets	$ —	$ —

The valuation allowance for deferred tax assets was approximately $157.0 million and $121.6 million as of December 31, 2008 and 2007, respectively. The increase in the total valuation allowance for the years ended December 31, 2008, 2007 and 2006 was approximately $35.4 million, $26.2 million and 24.3 million, respectively. The Company has established valuation allowances against its deferred tax assets because management believes that, after considering all of the available objective evidence, both historical and prospective, the realization of the deferred tax assets does not meet the "more likely than not" criteria under SFAS No. 109.

In 2005 and February 2007, the Company performed analyses to determine if there were changes in ownership, as defined by Section 382 of the Internal Revenue Code, that would limit its ability to utilize certain net operating loss and tax credit carryforwards. The Company determined that it experienced an ownership change, as defined by Section 382, in connection with its acquisition of Principia Associates, Inc. on September 20, 2002, but did not experience a change in ownership upon the effectiveness of the Company's IPO. As a result, the utilization of the Company's federal tax net operating loss carryforwards generated prior to the ownership change is limited.

(11) Income Taxes (Continued)

As of December 31, 2008, the Company has net operating loss carryforwards for U.S. federal tax purposes of approximately $270.6 million, after excluding net operating losses that have expired unused as a result of Section 382 limitations, with the remainder expiring in varying amounts through 2028 unless utilized. At December 31, 2008, the Company has state net operating loss carryforwards of approximately $234.1 million, which will expire through 2012 unless utilized. The utilization of these net operating loss carryforwards may be further limited if the Company experiences future ownership changes as defined in Section 382 of the Internal Revenue Code. Approximately $24 million of state net operating loss carryforwards expired in 2008. At December 31, 2008, the Company had approximately $9.5 million and $3.5 million, respectively, in federal and state research and development credits which expire through 2028 and 2023, respectively.

The Company is currently open to examination under the statute of limitations by the Internal Revenue Service and state jurisdictions for the tax years ended 2005 through 2008. Carryforward tax attributes generated in years past may still be adjusted upon future examination if they have or will be used in a future period. The Company is currently not under examination by the Internal Revenue Service or any other jurisdictions for any tax years.

(12) Commitments and Contingencies

Leases

The Company leases its research and office facilities under non-cancelable operating leases with terms expiring through 2011. Each of these leases contains renewal options ranging from one to five years.

In 2008, the Company expanded leased space in three of its research and office facilities through the end of the existing lease terms.

In November 2004, the Company entered into an agreement for a revolving property and equipment lease line of credit which was amended in 2005. Under the amended agreement, the Company may periodically directly lease, or sell and lease-back, up to $6.0 million of property and equipment, with payment periods of 36 or 48 months and a $1.00 purchase option at the end of each lease period. The lease rates are based upon a fixed base interest rate plus the respective prevailing 36- or 48-month U.S. Treasury Bill interest rates at the time of each funding. As of December 31, 2008, the Company sold and leased back under this agreement an aggregate of approximately $10.4 million of its previously purchased property and equipment, of which approximately $3.3 million and $7.1 million were capitalized and are being paid over 36 and 48 months, respectively. The term of this lease agreement ended in July 2008. The Company also leases a vehicle and other equipment under various other non-cancellable operating leases.

(12) Commitments and Contingencies (Continued)

Future minimum payments, excluding operating costs and taxes, under the Company's capital and non-cancellable operating leases, are approximately as follows (in thousands):

	Capital leases	Operating leases
Years ended December 31,		
2009	$ 2,480	$2,514
2010	1,393	1,983
2011	710	1,752
2012	92	—
Total minimum lease payments	4,675	$6,249
Less: amount representing interest	(493)	
Present value of minimum capital lease payments	4,182	
Less current portions of capital lease obligations	(2,170)	
Capital lease obligations—long term	$ 2,012	

Rent expense was approximately $2.5 million, $2.3 million and $1.9 million, for the years ended December 31, 2008, 2007 and 2006, respectively.

License Agreements

Queen's Medical Center

In March 2003, and amended in April 2004, the Company entered into an exclusive, royalty-bearing license agreement with Queen's Medical Center (QMC) for certain technology related to ion channel technologies. Under the terms of the agreement, if certain milestones are met, the Company is obligated to make cash payments of up to an aggregate of $1.0 million. If commercialization is achieved, the Company will be required to pay royalties to QMC on the net sales of any product using the licensed technologies. In the event the Company grants a sublicense of the licensed technology, the Company is obligated to compensate QMC a percentage of all fees received from the sublicense.

Through December 31, 2008, no milestone, royalty, or sublicense payments had been earned by or paid to QMC.

Beth Israel Deaconess Medical Center

The Company acquired an exclusive license from Beth Israel Deaconess Medical Center (Beth Israel) relating primarily to monoclonal antibodies and ion channel technologies. Under the terms of the license, if certain milestones are met, the Company is required to make cash payments up to an aggregate of $1.0 million. If commercialization is achieved, the Company will be required to pay royalties on the net sales of any product using the licensed technology. In the event the Company grants a sublicense of the licensed technology, the Company is obligated to compensate Beth Israel a percentage of all fees received from the sublicense.

Through December 31, 2008, no milestone, royalty or sublicense payments had been earned by or paid to Beth Israel.

(12) Commitments and Contingencies (Continued)

Consulting Agreements

In October 2002, the Company entered into a consulting agreement with an SAB member for scientific advisory services which was amended in October 2003. Under the amended consulting agreement, the term was four years from the effective date of the amendment, and in exchange for a one-time payment of $400,000, the parties agreed to eliminate a one-time bonus payment to the SAB member based on the achievement of a certain performance milestone that was included in the original agreement. In addition to an annual consulting fee, the consultant was entitled to a bonus payment of a portion of any upfront or milestone payments received by the Company related to certain calcium channel technology during the four-year term of the amended agreement. In April 2007, the Company further amended this consulting agreement for a two-year term from the effective date of the amendment. In addition to the annual consulting fee, the consultant is entitled to potential bonus payments upon the Company entering into a partnership for certain calcium channel technology and upon the filing of an investigational new drug application (IND) with the FDA for a drug candidate developed under such a partnership. In connection with the Roche Agreement entered into in December 2008, the Company recorded a $250,000 fee to this consultant in the year ended December 31, 2008. This corresponding payment was made in January 2009.

Guarantees

As permitted under Delaware law, the Company's Certificate of Incorporation and Bylaws provide that the Company will indemnify certain of its officers and directors for certain claims asserted against them in connection with their service as an officer or director. The maximum potential amount of future payments that the Company could be required to make under these indemnification provisions is unlimited. However, the Company has purchased a directors' and officers' liability insurance policy that reduces its monetary exposure and enables it to recover a portion of any future amounts paid. The Company believes the estimated fair value of these indemnification arrangements is minimal.

The Company customarily agrees in the ordinary course of its business to indemnification provisions in agreements with clinical trials investigators in its drug development programs, in sponsored research agreements with academic and not-for-profit institutions, in various comparable agreements involving parties performing services for the Company in the ordinary course of business, and in its real estate leases. The Company has agreed to indemnify GSK and its affiliates under the GSK Agreement against losses incurred or imposed as a direct result of claims arising out of the manufacture, use or sale by the Company of any product, except with respect to claims or losses that result from a breach of the GSK Agreement by, or the gross negligence or willful misconduct of, GSK. The Company has also agreed to indemnify Roche and its affiliates under the Roche Agreement against losses, expenses, cost of defense, and any amounts Roche becomes legally obligated to pay because of any claim that arises out of the breach of any representation or warranty made by the Company under the Roche Agreement, except to the extent that such losses are due to the gross negligence or willful misconduct of Roche or the breach by Roche of any representation or warranty under the Roche Agreement.The Company also expects to agree to certain indemnification provisions in any future drug discovery and development collaboration agreements. With respect to the Company's clinical trials and sponsored research agreements, these indemnification provisions typically apply to any claim asserted against the investigator or the investigator's institution relating to personal injury or property damage, violations of law or certain breaches of the Company's contractual obligations arising out of the research or clinical testing of the Company's compounds or drug candidates. With respect to

(12) Commitments and Contingencies (Continued)

lease agreements, the indemnification provisions typically apply to claims asserted against the landlord relating to personal injury or property damage caused by the Company, to violations of law by the Company or to certain breaches of the Company's contractual obligations. The indemnification provisions appearing in collaboration agreements are similar, but in addition provide some limited indemnification for its collaborator in the event of third-party claims alleging infringement of intellectual property rights. In each of the cases above, the term of these indemnification provisions generally survives the termination of the agreement, although the provision has the most relevance during the contract term and for a short period of time thereafter. The maximum potential amount of future payments that the Company could be required to make under these provisions is generally unlimited. The Company purchased insurance policies covering personal injury, property damage and general liability that reduce its exposure for indemnification and would enable it in many cases to recover a portion of any future amounts paid. The Company has never paid any material amounts to defend lawsuits or settle claims related to these indemnification provisions. Accordingly, the Company believes the estimated fair value of these indemnification arrangements is minimal.

(13) Related Party Transactions

In January 2005, the Company entered into an Agreement and Release with its scientific founder, who is a board member, whereby all outstanding matters regarding various oral understandings and arrangements between the scientific founder and the Company were resolved, including arrangements relating to (1) the assignment by the scientific founder of the benefit of his interests, if any, resulting from the Company's acquisition of the net assets of Cancer Genomics, Inc., Kava Pharmaceuticals, Inc. and SinglePixel Biomedical, Inc., (2) the scientific founder's assignment of inventions, non-competition, non-solicitation and confidentiality agreements with the Company, and (3) a release by the scientific founder of any and all claims that the scientific founder may have had against the Company. Pursuant to this agreement, the Company is paying the scientific founder $500,000, payable in $25,000 installments quarterly for five years. The full amount of the obligation was charged to research and development expense in 2005. Total installment payments in each of the years ended December 31, 2008, 2007 and 2006 were approximately $100,000. The remaining amount of the obligation as of December 31, 2008 was $100,000.

The Company paid its scientific founder and a member of the board consulting fees of approximately $25,000 per month in January and February 2007 pursuant to a consulting agreement dated April 18, 2005. In March 2007, the Company amended the consulting agreement to reduce the fee from $25,000 to $10,000 per month. Total consulting fees paid in the years ended December 31, 2008, 2007 and 2006 were approximately $120,000, $150,000 and $300,000, respectively.

(14) Retirement Plan

In 2003, the Company implemented a 401(k) retirement plan (the Synta 401(k) Plan) in which substantially all of its permanent employees are eligible to participate. Participants may contribute a percentage of their annual compensation to the plan, subject to statutory limitations. The Company may declare discretionary matching contributions to the Synta 401(k) Plan.

In April 2006, the Company began matching participants' contributions up to 50% of the first 6% of the employee's salary. The match is subject to a three-year equally graded vesting schedule and any forfeitures will be applied to reduce the Company's contributions. Company contributions for the years

(14) Retirement Plan (Continued)

ended December 31, 2008, 2007 and 2006 were approximately $514,000, $411,000 and $236,000, respectively, subject to forfeitures.

(15) Subsequent Event—Restructuring Costs

On February 26, 2009, the Company announced it had suspended its SYMMETRY trial, the Phase 3 clinical study comparing elesclomol in combination with paclitaxel to paclitaxel alone in chemo-naïve patients with stage IV metastatic melanoma. In addition, all other trials of elesclomol were suspended as well.

On March 12, 2009, the Company committed to a restructuring that consisted primarily of a workforce reduction of approximately 90 positions, to a total of approximately 130 positions to better align its workforce to its revised operating plans following the suspension of its SYMMETRY clinical trial. The Company estimates its costs in connection with the workforce reduction, comprised principally of severance, unused vacation payments, benefits continuation costs and outplacement services, will range from $1.4 million to $1.5 million. As a result of terminating these employees, the Company estimates it may incur an impairment charge for certain research laboratory equipment, computer equipment, and furniture and fixtures due to the fact that these assets may no longer be utilized. The Company estimates it will incur additional costs in connection with the suspension of the SYMMETRY trial, including one-time contract termination costs and fees and other related costs. At this time, the Company is unable to estimate the amount of a possible impairment or contract termination costs as it is in the process of evaluating its facilities and equipment needs and is in contract termination negotiations with certain of its vendors. Substantially all cash payments under the restructuring are expected to be paid during 2009. Employees directly affected by the restructuring have received notification and will be provided with severance payments. The Company expects to complete the restructuring in the second quarter of 2009.

Related to the restructuring, the Company's compensation committee of its board of directors determined to not approve any employee bonuses for 2008 and, accordingly, in the fourth quarter of 2008, the Company reversed approximately $1.6 million of previously accrued bonus expense as of September 30, 2008.

(16) Quarterly Financial Data (unaudited)

The following tables present a summary of quarterly results of operations for 2008 and 2007:

	Three Months Ended			
	March 31, 2008	June 30, 2008	September 30, 2008	December 31, 2008
	(in thousands, except shares and per share data)			
Collaboration revenues:				
License and milestone revenue	$ 1,338	$ 1,338	$ 2,819	$ 3,018
Cost sharing reimbursements, net	—	(1,969)	(1,547)	(2,382)
Total collaboration revenues	1,338	(631)	1,272	636
Operating expenses:				
Research and development	16,150	18,342	24,058	23,031
General and administrative	3,633	3,974	3,665	3,470
Total operating expenses	19,783	22,316	27,723	26,501
Loss from operations	(18,445)	(22,947)	(26,451)	(25,865)
Other income (expense):				
Interest income	922	374	256	27
Interest expense	(127)	(121)	(126)	(115)
Other income, net	795	253	130	(88)
Net loss attributable to common stockholders	$ (17,650)	$ (22,694)	$ (26,321)	$ (25,953)
Basic and diluted net loss attributable to common stockholders per share	$ (0.52)	$ (0.67)	$ (0.78)	$ (0.77)
Basic and diluted weighted average number of common shares outstanding	33,730,230	33,733,536	33,736,510	33,741,960

(16) Quarterly Financial Data (unaudited) (Continued)

	Three Months Ended			
	March 31, 2007	June 30, 2007	September 30, 2007	December 31, 2007
	(in thousands, except shares and per share data)			
Collaboration revenues:				
License and milestone revenue	$ —	$ —	$ —	$ 743
Cost sharing reimbursements, net	—	—	—	—
Total collaboration revenues	—	—	—	743
Operating expenses:				
Research and development	13,544	13,613	11,542	13,326
General and administrative	3,468	3,853	3,852	3,761
Total operating expenses	17,012	17,466	15,394	17,087
Loss from operations	(17,012)	(17,466)	(15,394)	(16,344)
Other income (expense):				
Interest income	788	860	657	952
Interest expense	(131)	(135)	(138)	(132)
Other income, net	657	725	519	820
Net loss	(16,355)	(16,741)	(14,875)	(15,524)
Convertible preferred stock beneficial conversion feature	58,585	—	—	—
Net loss attributable to common stockholders	$ (74,940)	$ (16,741)	$ (14,875)	$ (15,524)
Basic and diluted net loss attributable to common stockholders per share	$ (2.61)	$ (0.50)	$ (0.44)	$ (0.46)
Basic and diluted weighted average number of common shares outstanding	28,767,605	33,658,536	33,661,580	33,708,862

QuickLinks

Exhibit 10.27

EXECUTION COPY

COLLABORATION AND LICENSE AGREEMENT

This COLLABORATION AND LICENSE AGREEMENT (this "Agreement"), dated as of December 23, 2008 (the "Execution Date"), is entered into by and between SYNTA PHARMACEUTICALS CORP., a Delaware corporation having a principal office at 45 Hartwell Avenue, Lexington, MA 02421, U.S.A. ("SYNTA"), and F. HOFFMANN-LA ROCHE LTD, a Swiss corporation having a principal office located at Grenzacherstrasse 124, CH-4070 Basel, Switzerland ("ROCHE BASEL") and HOFFMANN-LA ROCHE INC., a New Jersey corporation having a principal office at 340 Kingsland Street, Nutley, New Jersey 07110, U.S.A. ("ROCHE NUTLEY"; ROCHE BASEL and ROCHE NUTLEY together referred to as "ROCHE").

INTRODUCTION

WHEREAS, ROCHE has expertise and capability in the research, development, manufacture and commercialization of pharmaceutical products;

WHEREAS, SYNTA is a biopharmaceutical company focused on discovering, developing and commercializing products for extending and enhancing the lives of patients with severe medical conditions, including inflammatory and immune-mediated diseases and disorders; and

WHEREAS, SYNTA and ROCHE desire to collaborate on the discovery, research, development and commercialization of certain potential products containing small-molecule compounds that may be contributed to the collaboration by either party and directed to the inhibition of calcium release-activated calcium channels.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration the receipt of which is hereby acknowledged, SYNTA and ROCHE agree as follows:

ARTICLE I -DEFINITIONS

General. When used in this Agreement, each of the following terms shall have the meanings set forth in this Article I:

1.1. "Affiliate" means any Person directly or indirectly controlled by, controlling, or under common control with, a Party, but only for so long as such control shall continue. For purposes of this definition, "control" (including, with correlative meanings, "controlled by", "controlling" and "under common control with") means, with respect to a Person, possession, direct or indirect, of (a) the power to direct or cause direction of the management and policies of such Person (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise), or (b) at least fifty percent (50%) of the voting securities (whether directly or pursuant to any option, warrant, or other similar arrangement) or other comparable equity interests. Anything to the contrary in this paragraph notwithstanding, Genentech, Inc., a Delaware corporation (" Genentech") and its subsidiaries, and Chugai Pharmaceutical Co., Ltd, a

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Japanese corporation ("Chugai") and its subsidiaries (each, Genentech, Chugai and their subsidiaries a " ROCHE Entity"), shall not be deemed an Affiliate of ROCHE unless ROCHE provides written notice to SYNTA of its desire to include a particular ROCHE Entity as an Affiliate of ROCHE. ROCHE shall have the right to include such ROCHE Entity in whole or in part, i.e. on a legal entity-by-legal entity basis. Notwithstanding such written notice, if any ROCHE Entity does not agree to be bound by the terms and conditions of this Agreement, then such ROCHE Entity shall have none of the rights and obligations of an Affiliate of ROCHE under this Agreement. Notwithstanding the preceding provisions, once an entity ceases to be an Affiliate, then such entity shall, without any further action, cease to have any rights, including license and sublicense rights, under this Agreement that it has by reason of being an Affiliate but shall remain bound by the provisions of Article IX in accordance with its terms.

1.2. "Business Day" means a day that is not a Saturday, Sunday or a day on which banking institutions in Boston, Massachusetts, U.S., or in Basel, Switzerland are authorized by Law to remain closed.

1.3. "Calendar Quarter" means each of the three (3) month periods ending on March 31, June 30, September 30, and December 31 of any year.

1.4. "Change of Control" means, with respect to a Party: (a) the acquisition by any Third Party of beneficial ownership of fifty percent (50%) or more of the then-outstanding common shares or voting power of such Party, other than acquisitions by employee benefit plans sponsored or maintained by such Party; or (b) the consummation of a business combination involving such Party, unless, following such business combination, the stockholders of such Party immediately prior to such business combination beneficially own directly or indirectly more than fifty percent (50%) of the then-outstanding common shares or voting power of the entity resulting from such business combination.

1.5. "Clinical Trial" means a Phase 1 Clinical Trial, a Phase 2 Clinical Trial, a Phase 2a Clinical Trial, a Phase 2b Clinical Trial or a Phase 3 Clinical Trial.

1.6. "Collaboration Compound" means any small-molecule compounds Controlled by a Party which such Party knows or believes is a CRAC Channel Inhibitor. Any Collaboration Compound shall also include all pro-drugs, metabolites, constitutional and geometric isomers, regioisomers, stereoisomers including enantiomers and diastereoisomers, salt forms, hydrates, solvates and polymorphs of such Collaboration Compound, all of which shall constitute a single Collaboration Compound.

1.7. "Commercialization" and "Commercialize" means all activities undertaken relating to the marketing, promotion (including advertising, detailing and Phase 4 studies), any other offering for sale, distribution and sale of a product.

1.8. "Commercially Reasonable Efforts" means such level of efforts required to carry out an obligation in a sustained manner consistent, as to ROCHE, with the efforts normally used by major global pharmaceutical companies or, as to SYNTA, with the efforts normally used by

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biopharmaceutical companies of comparable size and resources and at the same stage of development as SYNTA, for a product or compound which is of similar market potential and at a similar stage of development or commercialization, as applicable, taking into account the existence of other competitive products in the market place or under development, the proprietary position of the product, the regulatory structure involved, the anticipated profitability of the product (without regard to any amounts paid or payable with respect to Licensed Products under this Agreement) and other relevant factors. It is also to be appreciated that a major global pharmaceutical company does not always seek to market products in every country or seek regulatory approval for every potential Indication, but that ROCHE shall undertake to commercialize Licensed Products in the Major Markets absent a compelling reason not to do so. It is understood that such products' potential may change from time to time based upon changing scientific, business and marketing and return on investment considerations. As a result, the exercise of diligence by ROCHE is to be determined by judging ROCHE's commercially reasonable efforts taken as a whole.

1.9. "Confidential Information" means all proprietary Know-how of a Party which are disclosed (whether in written, graphic, oral, electronic or other form) by or on behalf of such Party to another Party pursuant to this Agreement, including: information regarding a Party's or its licensor's technology, products, business or financial status, and biological or chemical substances, formulations, techniques, methodology, equipment, sources of supply, patent positioning, and business plans. The status, prospects or objectives regarding the Research Program, Collaboration Compounds or Licensed Products shall be deemed "Confidential Information" of both Parties. All information disclosed prior to the Effective Date by or on behalf of either Party under, and subject to, any of the confidentiality agreements between SYNTA and ROCHE NUTLEY dated [***], and [***] or the confidentiality agreement between SYNTA and Roche Palo Alto LLC, an Affiliate of ROCHE, dated [***] (together, the "Confidentiality Agreements") shall be deemed "Confidential Information" of the disclosing Party hereunder.

1.10. "Contract Year" means each successive twelve (12) month period commencing on January 1, 2009 and on each anniversary thereof.

1.11. "Control" or "Controlled" means, with respect to any Patent Rights or Know-how and with respect to any Person, possession (whether by ownership or license, other than a license granted pursuant to this Agreement) by such Person of the ability to grant the licenses or sublicenses as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.12. "Co-promoted Product" means a Licensed Product with respect to which SYNTA has exercised its Co-promotion Option pursuant to Section 5.3.

1.13. "Co-promotion" means the joint marketing and promotion (including detailing) of Licensed Products in the United States as further described in Article V.

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

1.14. "Cover", "Covering" or "Covered" means, with respect to a product, composition, technology, process or method that, in the absence of ownership of or a license granted under a Valid Claim, the manufacture, use, offer for sale, sale or importation of such product or the practice of such technology, process or method would infringe such Valid Claim (or, in the case of a Valid Claim that has not yet issued, would infringe such Valid Claim if it were to issue).

1.15. "CRAC Channel" means the genes for the calcium release-activated calcium channel (also known by names [***].

1.16. "CRAC Channel Inhibitor" means [***].

1.17. "Development" and "Develop" means, with respect to a Licensed Compound, non-clinical (including preclinical) and clinical drug development activities, pre-marketing activities and related research, including: conducting toxicology studies, DMPK studies, process and drug product (dosage form) development, statistical analysis and report writing, clinical trials for the purpose of obtaining or maintaining Regulatory Approval (including post-marketing studies intended to support Regulatory Approval but excluding Phase 4 studies) and regulatory affairs related to all of the foregoing. Development shall not include Research.

1.18. "Development Cost" means the costs incurred by SYNTA for its account after the Effective Date which are consistent with a Development Plan and are specifically attributable to the Development of Licensed Compounds or Licensed Products. Such costs shall mean the direct cost and indirect costs of all SYNTA Development personnel and Third Party costs, all of them incurred to further the Development of Licensed Compounds or Licensed Products. SYNTA shall calculate the direct and indirect costs of SYNTA Development personnel based on the FTE Rate.

1.19. "Effective Date" means the Execution Date.

1.20. "EMEA" means the European Medicines Agency and any successor agency thereto.

1.21. "EU" means the European Union, as it may be redefined from time to time.

1.22. "Executive Officer(s)" means, with respect to SYNTA, the Chief Executive Officer of SYNTA, and with respect to ROCHE, Head of Pharma Partnering.

1.23. "FBMC" means, for a Licensed Product, the standard manufacturing cost, as defined by the manufacturing Party's standard cost accounting practices and policies and consistently applied by such Party. FBMC shall include direct labor, materials, product testing costs, including quality control and quality assurance bulk testing and in-process testing (*e.g.*, adventitious virus and mycoplasma testing), and allocable overhead for manufacturing or contracting for each stage of the manufacturing process of the Licensed Product shipped. In addition, FBMC includes failures that are considered normal yield losses that could be reasonably expected or justified in this area of technology, excess capacity and idle plant cost to

the extent associated with the Licensed Product, and write off and disposal costs of expired goods (raw materials, intermediates and products).

1.24. "FDA" or "Food and Drug Administration" means the United States Food and Drug Administration and any successor agency thereto.

1.25. "Field" means all human pharmaceutical and diagnostic uses, excluding medical device uses.

1.26. "First Commercial Sale" means, with respect to a Licensed Product in a country in the Territory, the first *bona fide* arms-length sale of such Licensed Product sold to a Third Party in such country by or on behalf of ROCHE, its Affiliates or Sublicensees after Regulatory Approval has been obtained for such Licensed Product in such country.

1.27. "First Licensed Compound" means, with respect to each stage of Development (the early stages of which are described in Section 2.4.1), the first Licensed Compound to enter such stage of Development during the Term.

1.28. "FTE" means a full-time equivalent person-year (consisting of a total of [***] hours per year) of scientific, technical, or managerial work on or directly related to activities performed under the Research Plan or Development Plan.

1.29. "FTE Rate" means $[***] per FTE, increased annually by the percentage increase in the Consumer Price Index (" CPI") as of the then-most-recent December 31 over the CPI as of December 31, [***]. [***] $[***]. As used in this Section 1.29, Consumer Price Index or CPI means the Consumer Price Index — Urban Wage Earners and Clerical Workers, US City Average, All Items, 1982-84 = 100, published by the United States Department of Labor, Bureau of Labor Statistics (or its successor equivalent index).

1.30. "Generic Competition" means, with respect to a Licensed Product in any country in the Territory in a given Calendar Quarter, if, during such Calendar Quarter, one or more Generic Products shall be commercially available in such country and such Generic Products shall have a market share of [***] percent ([***]%) or more of the aggregate market in such country of such Licensed Product and Generic Products (based on sales of units of such Licensed Product and such Generic Products, as reported by IMS International, or if such data are not available, such other reliable data source as reasonably determined by ROCHE and agreed by SYNTA).

1.31. "Generic Product" means, with respect to a Licensed Product in a country, any pharmaceutical product sold by a Third Party not authorized by or on behalf of ROCHE or its Affiliates, that (a) contains as an active pharmaceutical ingredient the same CRAC Channel Inhibitor (or its pro-drug, metabolite, constitutional or geometric isomer, regioisomer, stereoisomer including enantiomer or diastereoisomer, salt form, hydrate, solvate or polymorph of such CRAC Channel Inhibitor), as the one contained in such Licensed Product, (b) is "a therapeutic equivalent" to such Licensed Product as such term is used in the Approved Drug Products with Therapeutic Equivalence Evaluations published by the FDA Center for Drug Evaluation and Research or any successor publication, and (c) is approved in reliance on the

prior approval of such Licensed Product as determined by the applicable Regulatory Authority in such country.

1.32. "GLP Toxicology Study" means an *in vivo* toxicology study designed to be no less than [***] ([***]) days in duration, that is conducted in compliance with GLP and is required to meet the requirements for filing an IND.

1.33. "GLP" or "Good Laboratory Practice" means current good laboratory practice standards promulgated or endorsed by the FDA as defined in 21 C.F.R. Part 58, or any comparable regulatory standards in any country other than the United States.

1.34. "IND" or "Investigational New Drug Application" means an Investigational New Drug Application filed with the FDA in the United States or any equivalent counterpart in any country other than the United States, including all supplements and amendments thereto.

1.35. "Indication" means any human disease or condition, or sign or symptom of a human disease or condition.

1.36. "Initiation" means, with respect to a Clinical Trial, the first dosing of the first patient enrolled in such Clinical Trial with a Licensed Product; and with respect to a GLP Toxicology Study, the first dosing of the first mammal in such study.

1.37. "Joint Intellectual Property" means the Joint Know-how and Joint Patent Rights.

1.38. "Joint Know-how" means Know-how that is developed by one or more employees, agents or consultants of SYNTA or any of its Affiliates, on the one hand, and one or more employees, agents or consultants of ROCHE or any one of its Affiliates, on the other hand, in the conduct of Research, Development, Manufacturing or Commercialization of Collaboration Compounds, Licensed Compounds or Licensed Products, including Joint Inventions.

1.39. "Joint Patent Rights" means all Patent Rights that claim or disclose Joint Know-how.

1.40. "Know-how" means any information and materials, whether patentable or not, including (a) ideas, discoveries, inventions, improvements or trade secrets, (b) pharmaceutical, chemical and biological materials, products and compositions, (c) tests, assays, techniques, data, methods, procedures, formulas, or processes, (d) technical, medical, clinical, toxicological, and other scientific data and other information relating to any of the foregoing, and (e) drawings, plans, designs, diagrams, sketches, specifications, or other documents containing or relating to such information or materials.

1.41. "Law" or "Laws" means all laws, statutes, rules, regulations, orders, judgments, or ordinances having the effect of law of any federal, national, multinational, state, provincial, county, city or other political subdivision.

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

1.42. "Licensed Compound" means [***]. For further clarity, if ROCHE terminates a Licensed Compound in one or more regions pursuant to Section 12.3, such Licensed Compound shall continue to be deemed a Licensed Compound except as provided in Article XII unless and until ROCHE terminates such Licensed Compound in all Regions pursuant to Section 12.3 (whether ROCHE so terminates such Licensed Compound in all Regions simultaneously or terminates such Licensed Compound in all Regions over time). For the sake of clarity, any Licensed Compound shall also include all pro-drugs, metabolites, constitutional and geometric isomers, regioisomers, stereoisomers including enantiomers and diastereoisomers, salt forms, hydrates, solvates and polymorphs of such Licensed Compound, all of which shall constitute a single Licensed Compound. [***].

1.43. "Licensed Product" means any pharmaceutical product containing as an active pharmaceutical ingredient a Licensed Compound; provided, however, that such product may not contain an active pharmaceutical ingredient having a composition of matter that is Covered by SYNTA Patent Rights unless such active pharmaceutical ingredient is a Licensed Compound.

1.44. "Major EU Country" means France, Germany, Italy, Spain or the United Kingdom.

1.45. "Major Market" means any Major EU Country, Japan, or the United States.

1.46. "Manufacture" means all activities related to the manufacturing of a compound or product, including test method development and stability testing, formulation, process development, manufacturing scale-up, manufacturing for use in non-clinical and clinical studies, manufacturing for commercial sale, packaging, release of product, quality assurance/quality control development, quality control testing (including in-process, in-process release and stability testing) and release of product or any component or ingredient thereof, and regulatory activities related to all of the foregoing.

1.47. "Marketing Exclusivity" means, with respect to a pharmaceutical product in a country: (a) the exclusivity afforded to the pharmaceutical product for being the first drug product containing the active ingredient to receive regulatory approval in that country, (b) pediatric exclusivity, or (c) orphan drug exclusivity, but only when the pharmaceutical product does not also have a non-orphan drug indication that is not protected by an unexpired exclusivity.

1.48. "MHLW" means the Japanese Ministry of Health, Labor and Welfare and any successor agency thereto.

1.49. "NDA" means a New Drug Application or a supplemental New Drug Application, as defined in 21 C.F.R. §§314.50 and 314.70, respectively, filed with the FDA with respect to a Licensed Product, or an equivalent application filed with the Regulatory Authority of a country in the Territory other than the United States, including any Marketing Authorization Application filed with the EMEA.

1.50. "Net Sales" means the amount calculated by subtracting from the amount of Adjusted Gross Sales (as defined below) a lump sum deduction of (1) [***] percent ([***]%) of

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Adjusted Gross Sales, with respect to Net Sales in the United States, (2) [***] percent ([***]%) of Adjusted Gross Sales, with respect to Net Sales in the Major Markets (other than the U.S.) and Canada, and (3) [***] percent ([***]%) of Adjusted Gross Sales, with respect to Net Sales in all territories other than those set forth in clause (1) and (2) above, in lieu of all deductions corresponding to charges allocable to the sale of Licensed Product and paid by ROCHE but which are not accounted for by ROCHE, its Affiliates, ROCHE Entities and Sublicensees on a product-by-product basis in the calculation of Adjusted Gross Sales (e.g., outward freights, postage charges, transportation insurance, packaging materials for dispatch of goods, custom duties, bad debt expense).

For purposes of this definition of "Net Sales", "Adjusted Gross Sales" shall mean the amount of gross sales of Licensed Product invoiced by ROCHE, its Affiliates, ROCHE Entities and its Sublicensees to Third Parties less deductions (which deductions shall in all cases be as consistently applied by ROCHE to its products) for:

(a) Governmental price reductions and changes to reserves for governmental price reductions, such as rebates to managed care organizations or social and welfare systems, charge backs or reserves for chargebacks, cash sales incentives (but only to the extent it is a sales related deduction which is accounted for within ROCHE on a product-by-product basis), government mandated rebates and similar types of rebates (e.g., Pharmaceutical Price Regulation Scheme, Medicaid, clawback schemes and any other similar such scheme);

(b) Contract pricing chargebacks and changes to reserves of contract pricing chargebacks, such as periodic charges of wholesalers and chargebacks for price capping programs;

(c) Customer rebates and changes to reserves of customer rebates, such as volume (quantity) discounts or price discounts;

(d) Returns and return reserves, including allowances actually given for spoiled, damaged, out-dated, rejected, returned Licensed Product sold, withdrawals and recalls;

(e) Cash discounts; and

(f) Taxes, such as value added or sales taxes, government mandated exceptional taxes and other taxes directly linked to the gross sales amount (but excluding income or capital gains taxes).

For the avoidance of doubt, the "Adjusted Gross Sales" shall be determined on a Licensed Product-by-Licensed Product basis using the same methodology as ROCHE consistently uses to recognize sales in its financial reporting, which is in accordance with the then-used International Financial Reporting Standards (IFRS), and is reviewed and approved by ROCHE's external auditors, it being understood that if the amount of any of the reserves accounted for as a deduction in the definition of "Adjusted Gross Sales" above exceeds the actual amount for which the reserve was established, the amount of such excess shall be treated as Net Sales.

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Notwithstanding the foregoing, amounts received by ROCHE, its Affiliates, ROCHE Entities and Sublicensees for the sale of Licensed Product among ROCHE, its Affiliates, ROCHE Entities or Sublicensees for resale shall not be included in the computation of Adjusted Gross Sales or Net Sales.

If a Licensed Product is sold as part of a Combination Product (as defined below), the Net Sales of the Licensed Product, for the purposes of determining royalties based on Net Sales, shall be determined country-by-country by multiplying the Net Sales of the Combination Product (as determined using the standard Net Sales definition), during the applicable reporting period, by the fraction, A/(A+B), where A is the average sale price of the Licensed Product when sold separately in similar quantities in finished form and B is the average sales price of the other compounds having independent therapeutic activity included in the Combination Product when sold separately in similar quantities in finished form, in each case in the same country as the Combination Product during the applicable reporting period or, if sales of both the Licensed Product and the other compounds having independent therapeutic activity did not occur in such period, then in the most recent reporting period in which sales of both occurred in the same country as the Combination Product. If such average sale price cannot be determined for both the Licensed Product and all other compounds having independent therapeutic activity included in the Combination Product, Net Sales of the Licensed Product for the purposes of determining royalty payments shall be calculated by multiplying the Net Sales of the Combination Product by the fraction of C/(C+D) where C is the fair market value of the Licensed Product and D is the fair market value of all other compounds having independent therapeutic activity included in the Combination Product. In such event, ROCHE shall in good faith make a determination of the respective fair market values of the Licensed Product and all other compounds having independent therapeutic activity included in the Combination Product, and shall notify SYNTA of such determination and provide SYNTA with data to support such determination. SYNTA shall have the right to review such determination and supporting data, and to notify ROCHE if it disagrees with such determination. If SYNTA does not agree with such determination and if the Parties are unable to agree in good faith as to such respective fair market values, then such matter shall be resolved in accordance with Section 13.2.

As used in this Agreement, "Combination Product" means any Licensed Product containing one or more additional active pharmaceutical compounds having independent therapeutic activity other than a Licensed Compound.

1.51. "Party" or "Parties" means SYNTA or ROCHE, as the context requires.

1.52. "Patent Rights" means all rights under any patent or patent application, in any country or jurisdiction in the Territory, including any patents issuing on such patent application and any substitution, extension or supplementary protection, certificate, reissue, reexamination, renewal, division, continuation or continuation-in-part of any of the foregoing.

1.53. "Person" means any natural person, corporation, general partnership, limited partnership, joint venture, proprietorship or other business organization or a governmental agency or a political subdivision thereto.

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1.54. "Phase 1 Clinical Trial" means a human clinical trial in any country, the principal purpose of which is a preliminary determination of safety in individuals or patients, that would satisfy the requirements of 21 C.F.R. §312.21(a), or an equivalent clinical study required by a Regulatory Authority outside of the United States.

1.55. "Phase 2 Clinical Trial" means a human clinical trial conducted in any country, intended to explore multiple doses, dose response, and duration of effect to generate initial evidence of safety and activity in a target patient population, that would satisfy the requirements of 21 C.F.R. §312.21(b), or an equivalent clinical study required by a Regulatory Authority outside of the United States.

1.56. "Phase 2a Clinical Trial" means, as to a particular Licensed Compound for an Indication, a Phase 2 Clinical Trial, or the relevant portion thereof, conducted in a sufficient number of patients to generate sufficient data, if successful, to commence a Phase 2b Clinical Trial or a Phase 3 Clinical Trial of such Licensed Compound for such Indication.

1.57. "Phase 2b Clinical Trial" means, as to a particular Licensed Product for an Indication, a Phase 2 Clinical Trial, or the relevant portion thereof, conducted in a sufficient number of patients to generate sufficient data, if successful, to either commence a Phase 3 Clinical Trial of such Licensed Compound for such Indication or file an NDA for such Licensed Product for such Indication.

1.58. "Phase 3 Clinical Trial" means a human clinical trial in any country that would satisfy the requirements of 21 C.F.R. §312.21(c), or an equivalent clinical study required by a Regulatory Authority outside of the United States.

1.59. "Region" means each of the following: (a) United States and Canada, collectively, (b) the EU, Iceland, Liechtenstein, Norway and Switzerland, collectively, (c) Japan, and (d) all countries in the rest of the world, collectively.

1.60. "Regulatory Approval" means any approval (including, if applicable, pricing and reimbursement approvals), licenses, registrations or authorizations by a Regulatory Authority that are necessary for the marketing and sale of product in a country or group of countries.

1.61. "Regulatory Authority" means any federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over the marketing, pricing or sale of a product in a country, including the FDA.

1.62. "Research" means all activities relating to the discovery, evaluation and early preclinical testing of a compound or product, including identification of potential candidates, synthesis and testing by *in vitro* or *in vivo* assays, leading up to (with respect to Collaboration Compounds) the nomination and approval for advancement into Development of a Licensed Compound(s). Research shall exclude Development; provided however that Research and Development activities with respect to any compound or product may proceed in parallel.

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1.63. "Research Program" means the conduct of the Research activities described in the Research Plan.

1.64. "Right of Reference or Use" means a "right of reference or use" as that term is defined in 21 C.F.R. §314.3(b), or an equivalent in a country in the Territory other than the United States.

1.65. "ROCHE Intellectual Property" means the ROCHE Know-how, the ROCHE Patent Rights, and ROCHE's interest in the Joint Know-how and Joint Patent Rights.

1.66. "ROCHE Know-how" means, as of the relevant time during the Term, any Know-how that (a) is Controlled by ROCHE or its Affiliates, and (b) is, at that time, necessary or useful for the Research, Development, Manufacture or Commercialization of any Collaboration Compound, Licensed Compound or Licensed Product; provided, however, that ROCHE Know-how excludes Joint Know-how.

1.67. "ROCHE Patent Rights" means as of the relevant time during the Term, all Patent Rights that are Controlled by ROCHE or any of its Affiliates that, at such time, claim or disclose ROCHE Know-how. ROCHE Patent Rights exclude Joint Patent Rights.

1.68. "SYNTA Intellectual Property" means the SYNTA Know-how, the SYNTA Patent Rights and SYNTA's interest in Joint Know-how and the Joint Patent Rights.

1.69. "SYNTA Know-how" means as of the relevant time during the Term, any Know-how that (a) is Controlled by SYNTA, and (b) is, at that time, necessary or useful for the Research, Development, Manufacture or Commercialization of any Collaboration Compound, Licensed Compound or Licensed Product; provided, however, that SYNTA Know-how excludes Joint Know-how.

1.70. "SYNTA Patent Rights" means, as of the relevant time during the Term, all Patent Rights Controlled by SYNTA that, at such time, claim or disclose SYNTA Know-how. Certain SYNTA Patent Rights existing as of the Execution Date are set forth on Exhibit A; provided, however, that SYNTA Patent Rights exclude Joint Patent Rights.

1.71. "[***]" means [***].

1.72. "[***]" means [***].

1.73. "[***]" means [***].

1.74. "Sublicensee" means a Third Party to whom such Party has granted a sublicense pursuant to Sections 6.4, 12.6.6 or 12.10.7.

1.75. "Territory" means all countries of the world, but excluding, with respect to any Licensed Compound (and any products containing such Licensed Compound as an active ingredient), each Terminated Region.

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1.76. "Third Party" means any Person other than SYNTA or ROCHE or any of their respective Affiliates.

1.77. "United States" or "US" means the United States of America, its territories and possessions.

1.78. "Valid Claim" means any claim in any (a) unexpired and issued patent that has not been disclaimed, revoked or held invalid by a final nonappealable decision of a court or other governmental agency of competent jurisdiction, or (b) patent application that has not lapsed, in the case of a provisional patent application, or been cancelled, withdrawn or abandoned without the possibility of revival, nor has been pending for more than [***] ([***]) years from the earliest priority date claimed for such application.

1.79. Additional Definitions. Each of the following definition is set forth in the section of this Agreement indicated below:

Definition:	Section:
AAA	13.2.1
Accounting Period	7.7.1
Actual Costs	2.5.4
Adjusted Gross Sales	1.51
Agent	9.1
Agreement	Preamble
Alliance Manager	3.1.3
Bankruptcy Code	6.7
Budget	2.4.3
Chugai	1.1
Combination Product	1.50
Commercialization Decision	5.3
Confidentiality Agreements	1.9
Co-promotion Option	5.3
Covered Excess Amount	2.5.4
CPI	1.29
Development Plan	2.4.3
Execution Date	Preamble
Genentech	1.1
Indemnified Party	11.3
Indemnifying Party	11.3
Infringement Claim	8.3.1
Joint Inventions	8.1.1
JRDC	3.1.1
JSC	3.2.1
Notice	9.3.2
Paragraph IV Certification	8.6
Patent Challenge	12.5

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Definition:	Section:
Publishing Party	9.3.2
Research Plan	2.3.3
Research Term	2.3.1
Royalty Term	7.6.3(a)
ROCHE	Preamble
ROCHE BASEL	Preamble
ROCHE Entity	1.1
ROCHE NUTLEY	Preamble
SYNTA	Preamble
Term	12.1
Terminated Commercial Product	12.10.6
Terminated Region	12.3
Uncovered Excess Amount	2.5.4

ARTICLE II -COLLABORATION

2.1. Overview. The primary objective of the collaboration between the Parties will be to identify and select Collaboration Compounds under the Research Program that are suitable for further Research and, subject to Section 2.4, to advance the Development of such Collaboration Compounds as Licensed Compounds and the Commercialization of related Licensed Products in the Field, as further described below.

2.2. Commercially Reasonable Efforts. Each Party shall use Commercially Reasonable Efforts to conduct the activities which are assigned to such Party under the Research Plan or any Development Plan; provided, however, that neither Party guarantees the success of the Research Program or any individual Research, Development or Manufacturing activity undertaken under the Research Plan or Development Plan. Without limiting ROCHE's obligations pursuant to this Section 2.2, ROCHE shall use Commercially Reasonable Efforts to (a) Develop, at any given time, at least one Licensed Compound, and (b) seek Regulatory Approval for at least one Licensed Compound and then Commercialize each such approved Licensed Product for each approved Indication in the Field in the Territory.

2.3. Research Program.

2.3.1. Research Term. The initial term of the Research Program shall commence on January 1, 2009 and end on the second (2 nd) anniversary thereof, unless (a) earlier terminated hereunder, or (b) extended by mutual agreement of the Parties for additional one (1) year term(s), in which case the Parties shall agree upon appropriate FTE commitment levels, budget adjustments and other necessary amendments to the Research Plan (such initial two (2) year term, together with any extension, the "Research Term"). The SYNTA FTE Rate for any such extension shall be determined as set forth in Section 1.29.

2.3.2. Collaboration Compounds. The Research Program shall be conducted on Collaboration Compounds; provided, however, that if, in the course of the Research Program, it

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is determined that any such compound is not a CRAC Channel Inhibitor, such compound shall no longer be considered a Collaboration Compound, and provided, further, that any Collaboration Compound that is not a Licensed Compound as of the end of the Research Term shall revert to the Controlling Party (including all rights thereto and to any Confidential Information with respect to such Collaboration Compound which had been disclosed by such Controlling Party) and shall no longer be deemed a Collaboration Compound for purposes of this Agreement. It is the intent of the Parties that the initial Collaboration Compounds with respect to which Research will be conducted under the Research Program will be the Collaboration Compounds Controlled and identified by SYNTA hereunder. Compounds Controlled by ROCHE will be included as a Collaboration Compound with respect to which Research will be conducted under the Research Program and for other purposes of this Agreement only if mutually agreed by the Parties. The goal of the Research Program is for one or more Licensed Compounds to be approved for advancement into Development under Section 2.3.4.

2.3.3. Research Plan. The initial plan for the first two (2) Contract Years of the Research Program is attached hereto as Exhibit B (as may be amended from time to time upon mutual agreement of the Parties, the " Research Plan"). The Parties agree and acknowledge that this Research Plan reflects, as of the Execution Date, SYNTA's good faith estimates of Research activities and the timing, internal costs, and external costs associated with such activities, all of which could be subject to change. During the Research Term, SYNTA and ROCHE shall prepare an updated Research Plan for the third and each subsequent Contract Year, if applicable, at least [***] ([***]) days prior to the start of each such Contract Year. The Research Plan shall be consistent with the terms and conditions of this Agreement and shall be subject to review and approval by the JRDC and the JSC. The Research Plan shall specify, among other things, (a) key objectives, (b) Research and related Manufacturing activities to be performed up to nomination of a Licensed Compound for Development, (c) the number and types of FTEs to be assigned to specific activities and the Party supplying such FTEs, (d) costs and expenses for services to be provided by Third Parties, (e) to the extent known in advance, the academic collaborations and subcontractor arrangements anticipated for the applicable Contract Year, and (f) the budget for the applicable Contract Year. With respect to the first (2) Contract Years, all FTEs specified in the Research Plan shall be supplied by SYNTA. For the sake of clarity, neither the initial Research Plan attached hereto, nor any subsequent Research Plan once agreed by the Parties, may be amended except by mutual agreement of the Parties.

2.3.4. Licensed Compound Nomination.

(a) Either Party may nominate to the JDRC, for approval by the JSC, a Licensed Compound for advancement into Development leading up to a GLP Toxicology Study. Upon request by a Party, the other Party shall provide relevant available information and study results to support such nomination. If no Licensed Compound is approved for advancement into Development during the Research Term or within [***] ([***])[***] after expiration of the Research Term, SYNTA shall have the option, not the obligation, to perform the Development activities described in Section 2.4.1.

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(b) ROCHE shall have no right to Develop or Commercialize any Licensed Compound (other than any activities that may be assigned to ROCHE under the Research Plan) unless and until such Licensed Compound has been nominated by the JRDC, and approved by the JSC, for advancement into Development hereunder.

2.4. Development. The Parties shall pursue the Development of at least one Licensed Compound in accordance with a Development Plan and the remainder of this Article II, including seeking to pursue the Initiation of a GLP Toxicology Study. For clarity, for each Licensed Compound approved by the JSC for advancement into Development under Section 2.3.4(a), a set of Development activities will be conducted prior to the Initiation of a GLP Toxicology Study, as exemplified in Exhibit C. As of the Execution Date, the Parties agree that [***] is anticipated to be the First Licensed Compound.

2.4.1. First Licensed Compound. For the relevant First Licensed Compound, SYNTA (itself or through an Affiliate or a Third Party) shall, in accordance with the Development Plans: conduct pre-IND Development, Phase 1 Clinical Trials, and other nonclinical Development activities that are typically performed during each of the foregoing Development stages, and shall have the right, at SYNTA's option, to conduct a Phase 2a Clinical Trial for an Indication other than rheumatoid arthritis, provided, that such Indication is part of the Development Plan.

2.4.2. Other Licensed Compounds. Except as mutually agreed by the Parties or as set forth in Section 2.4.1, and subject to oversight by the JRDC and the JSC, ROCHE shall be solely responsible for the Development of Licensed Compounds and Licensed Products in the Field and in the Territory in accordance with the Development Plan and the terms and conditions of this Agreement; provided, however, that for Licensed Compounds other than the First Licensed Compound, the JRDC shall decide which Party shall conduct Development for such Licensed Compound; provided, further, that the JRDC and JSC cannot require SYNTA to undertake such responsibility unless SYNTA agrees to do so. Prior to the initiation of each stage of activity to be so conducted by SYNTA with respect to any Licensed Compound, the Parties shall discuss and undertake to finalize the anticipated scope, design, content, criteria, protocols, budget and other terms associated with the conduct of Development for such Licensed Compound and shall update the Development Plan to reflect such agreement.

2.4.3. Development Plans. For the First Licensed Compound, the initial Development Plans through and including one Phase 2a Clinical Trial with respect thereto are attached hereto as Exhibit C and Exhibit D (as may be amended from time to time upon mutual agreement of the Parties, the "Development Plans," including the "Development Plan — Pre-IND" and "Development Plan — Phase 1 and Phase 2a," respectively). The Parties agree and acknowledge that these initial Development Plans reflect, as of the Execution Date, SYNTA's good faith estimates of Development activities and the timing, internal costs, and external costs associated with such activities, all of which may be subject to change. With respect to the further Development of the relevant First Licensed Compound or following the approval for advancement into Development of any subsequent Licensed Compound, SYNTA and ROCHE, under the guidance of the JRDC, shall prepare initial or updated Development Plans directed to

Development activities in the Territory for such Licensed Compound for the next twelve (12) month period. An updated Development Plan for each subsequent twelve (12) month period will be prepared by SYNTA and ROCHE at least [***] ([***]) days prior to the beginning of each such subsequent twelve (12) month period. The Development Plan shall be consistent with the terms and conditions of this Agreement, and shall be subject to review and approval by the JRDC and the JSC. The Development Plan shall specify, among other things, (a) key objectives, (b) Development and related Manufacturing activities to be performed with respect to a Licensed Compound, including Initiation of Clinical Trials, (c) the Party responsible for performance of an activity, (d) the number and types of FTEs to be assigned to specific activities by SYNTA, (e) anticipated costs to be incurred under the Development Plans (the " Budget") for the applicable twelve (12) month period, and (f) Development timelines. For the sake of clarity, neither the initial Development Plans attached hereto, nor any subsequent Development Plan once agreed by the Parties, may be amended except by mutual agreement of the Parties.

2.5. Development Costs.

2.5.1. General. ROCHE shall pay its own Development expenses in carrying out each Development Plan, and shall pay SYNTA for all Development Costs incurred pursuant to each Development Plan and the applicable Budget as set forth below.

2.5.2. Audit Rights. ROCHE shall have the right to audit SYNTA to verify all of SYNTA's Development Costs incurred pursuant to a Development Plan and the Budget.

(a) SYNTA shall keep, and shall require its Affiliates to keep, for [***] ([***]) years, full, true and accurate books of account containing all particulars that may be necessary for the purpose of calculating all Development Costs under this Agreement. Such books of accounts shall be kept at SYNTA's or the relevant Affiliate's principal place of business. At the expense of ROCHE, ROCHE has the right to engage an independent, certified public accountant mutually acceptable to both Parties to perform, on behalf of ROCHE, an audit of such books and records of SYNTA and its Affiliates, that are deemed necessary by such accountant to report on Development Costs for the period or periods requested by ROCHE and the correctness of any report or payments made under this Agreement. Such accountant shall not have the authority to interpret this Agreement.

(b) Upon timely request and at least [***] ([***]) days prior written notice from ROCHE, such audit shall be conducted, during regular business hours in such a manner as to not unnecessarily interfere with SYNTA's or its Affiliates' normal business activities, and shall be limited to results in the [***] ([***]) calendar years prior to audit notification.

(c) Such audit shall not be performed more frequently than once per calendar year nor more frequently than once with respect to records covering any specific period of time.

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(d) All information, data and documents herein referred to shall be used only for the purpose of verifying Development Costs, shall be treated as SYNTA Confidential Information subject to the obligations of this Agreement and need neither be retained more than the longer of one (1) year after completion of an audit hereof, if an audit has been requested; nor more than [***] ([***]) years from the end of the calendar year to which each shall pertain; nor more than [***] ([***]) [***] after the date of termination of this Agreement.

(e) The final audit report shall be shared by ROCHE and SYNTA.

(f) If the audit reveals an underpayment, ROCHE shall reimburse SYNTA for the amount of the underpayment within [***] ([***]) days with interest as set forth in Section 7.7.2. If the audit reveals an overpayment, ROCHE shall have the right to credit the amount of such overpayment against the next payment payable to SYNTA hereunder. SYNTA shall pay for the audit costs if the audit reveals that an overpayment of ROCHE exceeds [***] percent ([***]%).

(g) The failure of ROCHE to request verification of any Actual Costs within the period during which the corresponding records must be maintained under Section 2.5.2(d) will be deemed acceptance of the Actual Cost payments and reports with respect thereto.

2.5.3. Budget. It is agreed between the Parties that for the calendar year 2009, the Budget for payment to SYNTA of its Development Costs under the Development Plan as of the Execution Date is [***] dollars ($[***]). On or before October 1, 2009 and not later than October 1 of each subsequent calendar year during the Term, the JSC shall approve annual Budgets for Development Costs scheduled for the following year; such annual Budgets to be consistent with the Development Plan(s). Upon approval, the annual Budget shall be the Budget then in effect.

2.5.4. Payments to SYNTA; Reconciliation. ROCHE shall pay to SYNTA the amount set forth as SYNTA's Development Costs under the Budget for each Calendar Quarter on or before the later of (a) the first day of such Calendar Quarter or (b) [***] ([***]) days after receipt of an invoice from SYNTA with respect to such Development Costs. Within [***] ([***]) days following the end of each such Calendar Quarter, SYNTA shall provide an accounting to ROCHE of the actually incurred Development Costs during such Calendar Quarter (the " Actual Costs"). Following the reporting by SYNTA of Actual Costs for each Calendar Quarter, the Parties shall reconcile any difference between the amounts paid by ROCHE to SYNTA for Development Costs and SYNTA's Actual Costs for such Calendar Quarter. If the amounts paid by ROCHE to SYNTA for Development Costs exceed SYNTA's Actual Costs during such Calendar Quarter, then the amount of such excess shall be credited to ROCHE against the next payment payable to SYNTA hereunder. If SYNTA's Actual Costs during the Calendar Quarter exceeds by less than [***] percent ([***]%) the amount paid by ROCHE for Development Costs during such Calendar Quarter (the amount of such excess, the " Covered Excess Amount"), then ROCHE shall pay the Covered Excess Amount to SYNTA as a supplemental payment. If SYNTA's Actual Costs during the Calendar Quarter exceeds by [***]

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percent ([***]%) or more the amount paid by ROCHE for Development Costs during such Calendar Quarter, then (y) ROCHE shall pay the Covered Excess Amount to SYNTA as a supplemental payment and (z) with respect to the amount of such excess over and above the Covered Excess Amount (the " Uncovered Excess Amount"), ROCHE shall pay the Uncovered Excess Amount but only if the JSC approves such Uncovered Excess Amount. ROCHE shall pay SYNTA any Covered Excess Amount and, to the extent payable by ROCHE hereunder, any Uncovered Excess Amount within [***] ([***]) days after receipt of an invoice from SYNTA therefor, subject to the cap of $[***] for calendar year 2009. For purposes of clarity, ROCHE's obligation under this Section 2.5.4 to pay SYNTA for Development Costs shall be separate from, and in addition to, ROCHE's obligation under Section 7.2 to pay SYNTA for internal and external Research costs incurred by SYNTA under the Research Plan.

2.6. Manufacturing. Each Party shall be responsible for the Manufacture and supply of all preclinical and clinical quantities of Collaboration Compounds Controlled by such Party in accordance with the Research Plan and Development Plan until such time as the Parties decide to transfer Manufacturing responsibility to ROCHE pursuant to Section 2.7.

2.7. Transfer of Responsibility to ROCHE.

2.7.1. Development; Regulatory. Subject to Section 2.4, SYNTA shall transfer to ROCHE all Development responsibility with respect to a Licensed Compound, on a Licensed Compound-by-Licensed Compound basis, once the relevant Collaboration Compound is designated a Licensed Compound or, if SYNTA is undertaking any Development activities with respect to such Licensed Compound in accordance with Section 2.4, once SYNTA's activities with respect to a GLP Toxicology Study or Phase 1 Clinical Trials for such Licensed Compound are complete, in accordance with a transition plan to be established by the Parties, including the transfer to ROCHE of any IND or other regulatory filings with respect to such Licensed Compound that are held by SYNTA in SYNTA's name. Notwithstanding the foregoing, for the First Licensed Compound, such transition shall occur promptly following completion of the first Phase 2a Clinical Trial, if such Clinical Trial is conducted by SYNTA, or promptly following completion of Phase 1 Clinical Trials, if SYNTA does not conduct the first Phase 2a Clinical Trial. Each Party shall continue to use Commercially Reasonable Efforts to perform critical Development activities which may be assigned to such Party under the relevant Development Plan, in a manner consistent with the transition plan, until the completion of such transfer of Development responsibility to ROCHE.

2.7.2. Manufacturing. Unless otherwise agreed by the Parties, concurrently with the transfer of all Development responsibility to ROCHE with respect to a Licensed Compound pursuant to Section 2.7.1 above, (a) SYNTA shall transfer to ROCHE, and ROCHE shall assume sole responsibility for, the Manufacture of non-clinical, clinical and commercial quantities of such Licensed Compound necessary for the Development and Commercialization of Licensed Products in the Field in the Territory, at ROCHE's sole cost and expense, and (b) SYNTA shall provide to ROCHE reasonable technical assistance, manufacturing and analytical Know-how, and material specifications Controlled by SYNTA that are necessary for ROCHE, its Affiliate or a Third Party manufacturer identified by ROCHE to Manufacture such Licensed Compound.

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2.7.3. Technology Transfer. If ROCHE requests that SYNTA provide ROCHE with technical assistance in transferring technology required for the manufacture of a Licensed Compound at a manufacturing facility, then SYNTA shall provide for each such Licensed Compound one (1) visit of up to [***] ([***]) [***] in duration of one full time SYNTA employee's time to provide such services. If ROCHE desires additional technical assistance, then SYNTA, at its option, shall provide such assistance and ROCHE shall compensate SYNTA on a time and materials basis at the FTE Rate per eight (8) hour day. Subject to the foregoing, SYNTA shall assist ROCHE, as reasonably requested by ROCHE, in (a) causing the assignment to ROCHE of any and all applicable Third Party manufacturing and supply agreements for such Licensed Product, to the extent assignable and related to such Licensed Products, or (b) transferring the manufacturing process for such Licensed Product to ROCHE or to a Third Party contract manufacturer engaged by ROCHE. Such assistance shall include assisting ROCHE by providing reasonable technical and regulatory assistance and documentation relating to the manufacture, testing and supply of such Licensed Product as necessary for ROCHE to be qualified or to qualify a Third Party for the manufacturing of such Licensed Product. Promptly after the transfer of all Development responsibility to ROCHE with respect to a Licensed Compound pursuant to Section 2.7.1 above , SYNTA shall deliver to ROCHE: (i) [***] ([***]) [***] of all intermediates pure enough to calibrate analytical instruments, (ii) analytical methods, (iii) batch records of the whole chemical synthesis, to the extent they exist, (iv) safety investigation (RC1, DSC, ARC) reports (if any) for relevant chemical steps, and (v) a list of key suppliers including agreements (if any) and all respective lead times.

2.8. Exchange of Information. For so long as a Party is conducting Research activities with respect to any Collaboration Compound or Development activities with respect to any Licensed Compound hereunder, each Party shall regularly provide the other Party, through the JRDC (if the JRDC remains in place), with all material information, data and results relating to such Research and Development activities.

2.9. Recordkeeping. All Research and Development work conducted by either Party under the Research Plan or Development Plan shall be completely and accurately recorded in separate laboratory notebooks, in sufficient detail and in good scientific manner appropriate for patent and regulatory purposes. Upon reasonable advance notice, and at reasonable intervals, each Party shall have the right to inspect and copy such records of the other Party reflecting on work done under the Research Plan or Development Plan, to the extent reasonably required to carry out its respective obligations and to exercise its respective rights hereunder.

2.10. Academic Collaborations; Subcontractors . Subject to the oversight of the JRDC and, with respect to clause (a) below, the approval of the JSC, either Party may enter into one or more agreements, solely in furtherance of conducting activities assigned to such Party under the Research Plan or Development Plan, with (a) academic, research or other non-commercial institutions; or (b) subcontractors (e.g., a Third Party providing pharmacology or other services); in each case under clause (a) or (b), provided that (i) such Party shall use Commercially Reasonable Efforts to obtain ownership of any inventions relevant to the Research and Development activities contemplated under the Research Plan or Development Plan, or an exclusive license, or option to secure an exclusive license, with the right to grant sublicenses to

the other Party, (ii) none of the rights of the other Party hereunder are diminished or otherwise adversely affected as a result of such subcontracting, and (iii) such Third Party shall be bound to protect both Parties' Confidential Information at least as stringently as the confidentiality provisions set forth in Article IX (subject to reasonable variations to Section 9.3.2 as may be required by academic, research or other non-commercial institutions).

2.11. Biological Samples. Subject to applicable Law and any restrictions or conditions imposed by informed consents, institutional review boards, ethical committees or other obligations to Third Parties, (a) as between the Parties, all biological samples (i.e., blood and tissue samples) generated in connection with the clinical Development activities set forth in this Agreement shall be owned by ROCHE, and (b) if the Parties reasonably agree that such samples will no longer be used, either at such time or in the foreseeable future thereafter, for the Development of Licensed Compounds hereunder, ROCHE shall have the right to use such samples for any purpose whatsoever and shall indemnify SYNTA and all its related Indemnified Parties with respect to any Third Party claims arising out of such use.

ARTICLE III -GOVERNANCE; DECISION-MAKING

3.1. Joint Research and Development Committee.

3.1.1. Formation and Membership. Within twenty (20) Business Days after the Effective Date, ROCHE and SYNTA shall establish a joint research and development committee (the "JRDC") comprised of an approximately equal number of representatives of ROCHE and SYNTA, which number is recommended to be between three (3) and five (5) representatives of each Party, and each of whom shall have experience and seniority sufficient to enable him or her to make day-to-day operational decisions on behalf of the Party he represents. Each Party may change any one or more of its representatives to the JRDC at any time upon written notice to the other Party. SYNTA's participation on the JRDC after the expiration of the Research Term shall be at SYNTA's election. From time to time, the JRDC may, in its discretion, establish one or more project teams, or identify project leaders from each Party, to, upon mutual agreement of the Parties, implement and coordinate various aspects of the Research Plan and the Development Plans or other elements of the collaboration hereunder, such as Manufacturing technology transfer or coordination of patent prosecution matters as set forth in Section 8.2.

3.1.2. Administrative Matters. The JRDC shall appoint a chairperson from among its members, who shall rotate annually during the Research Term between the representatives from SYNTA and the representatives from ROCHE, with the first chairperson to be a representative of SYNTA. After the Research Term, the chairperson of the JRDC shall be from ROCHE. The chairperson shall be responsible for calling meetings of the JRDC and for leading the meetings. A JRDC member of the chairing Party shall serve as secretary of such meetings. The secretary shall promptly prepare and distribute to all members of the JRDC draft minutes of the meeting for review and comment, including a list of any actions or decisions approved by the JRDC, with the goal of distributing final approved minutes of each JRDC meeting within thirty (30) days after the meeting.

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3.1.3. Alliance Managers. Each Party shall appoint one of its designees to serve as an alliance manager (" Alliance Manager") with responsibility for overseeing that the Parties' activities are conducted in accordance with this Agreement and the Research Plan and any Development Plan, and for being the primary point of contact between the Parties with respect to such activities. The Alliance Manager is responsible to drive the alliance progress and issue resolution between the Parties. The Alliance Managers will also be members of the JSC, attend JSC meetings and be responsible for communicating with and reporting to the JSC on all relevant matters.

3.1.4. Decision Making. Each Party shall have one (1) vote on the JRDC. Both Parties must vote in the affirmative to allow the JRDC to take any action that requires the vote of the JRDC. Action on any matter may be taken at a meeting, by teleconference or videoconference or by written agreement. If the JRDC is unable to reach unanimous agreement on any matter within its jurisdiction, then the matter shall be referred to the JSC for resolution under Section 3.2.4.

3.1.5. Meetings.

(a) The JRDC shall meet at least once during each Calendar Quarter during the Research Term and thereafter at least once per calendar half year for so long as the JRDC is in force. The location of JRDC meetings shall be as agreed by the Parties, and may be held in person, alternating locations between the Parties, or by telephone conference call or by videoconference.

(b) Each Party shall use reasonable efforts to cause its representatives to attend the meetings of the JRDC. If a Party's representative is unable to attend a meeting, such Party may designate an alternate representative to attend such meeting in place of the absent representative. In addition, each Party may, at its discretion, invite a reasonable number of additional employees, and, with the consent of the other Party, consultants or scientific advisors, to attend the meetings of the JRDC or the relevant portion thereof, provided that any such consultants or scientific advisors are bound by written obligations of confidentiality that are at least as stringent as those set forth in this Agreement.

(c) Either Party may also request that a special meeting of the JRDC be convened for the purpose of resolving disputes in connection with, or for the purpose of reviewing or making a decision pertaining to, the implementation of the Research Plan or Development Plan by providing written notice to the other Party. Such meeting shall be convened at such time as may be mutually agreed upon by the Parties, but in any event shall be held within fifteen (15) days after the date of such notice.

3.1.6. Responsibilities. Without limiting any of the foregoing, the JRDC shall be responsible for:

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(a) managing the development and execution of the Research Plan and any Development Plans, including developing, and recommending to the JSC for JSC approval, any associated Research Plan budgets and Budgets of Development Costs;

(b) developing, and recommending to the JSC for JSC approval, amendments to the Research Plan and any Development Plan, including amendments to any associated Research Plan budgets and Budgets of Development Costs;

(c) actively participating in the initial assessment of all Collaboration Compound(s) and providing strategic direction with respect to non-clinical and clinical activities for Licensed Compounds;

(d) overseeing the Research and Development of all Collaboration Compounds, including the preparation of Collaboration Compounds for advancement into Development;

(e) overseeing and advising on the technical development and clinical Manufacture of Collaboration Compounds;

(f) overseeing the preclinical and clinical Manufacture of Collaboration Compounds;

(g) overseeing the progress of the Research Program and monitoring the Parties' compliance with their respective obligations under the Research Plan or any Development Plan, including the accomplishment of key objectives;

(h) determining whether a Licensed Compound nominated pursuant to Section 2.3.4(a) is appropriate to be so nominated for advancement into Development leading up to a GLP Toxicology Study and, if so, recommending such nomination to the JSC for JSC approval;

(i) monitoring any reports submitted by the Parties pursuant to the Research Plan or any Development Plan;

(j) overseeing the transfer of Development and Manufacturing responsibility from SYNTA to ROCHE under Section 2.7; and

(k) performing such other tasks and undertaking such other responsibilities as may be set forth in this Agreement.

3.2. Joint Steering Committee.

3.2.1. Formation and Membership. Within twenty (20) Business Days after the Effective Date, ROCHE and SYNTA shall establish a joint steering committee (the "JSC") to review, coordinate and provide overall strategic direction to their activities pursuant to the Research Plan and any Development Plan and, if SYNTA exercises the Co-promotion Option,

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the promotion of the Co-promoted Product(s). The JSC shall be comprised of approximately three (3) senior executives of ROCHE and three (3) senior executives of SYNTA with appropriate levels of decision making authority. In addition, the Alliance Manager will be a member of the JSC. Each Party may change any one or more of its representatives to the JSC at any time upon written notice to the other Party. SYNTA's participation on the JSC after the end of the Research Term shall be at SYNTA's election. From time to time, the JSC may, in its discretion, establish one or more subcommittees or project teams to oversee particular projects or activities, as the JSC deems necessary or advisable. No Executive Officer shall serve on the JSC.

3.2.2. Responsibilities. The JSC shall be responsible for:

(a) reviewing the initial Research Plan and the initial Development Plan, including any associated budgets for the Research Plan and Budgets for the Development Plan;

(b) periodically reviewing the Research Plan and any Development Plan and suggesting or approving such amendments to the Research Plan or Development Plan as the JSC deems appropriate, including budget amendments;

(c) approving the criteria for advancement of Licensed Compounds into each stage of Development;

(d) providing overall strategic direction with respect to Research or Development activities conducted under the Research Plan or Development Plan;

(e) overseeing the JRDC and the Parties' progress in the conduct of the Research Program and in Research and Development activities hereunder;

(f) approving the nomination of Licensed Compounds which have been recommended by the JRDC for advancement into Development;

(g) receiving updates (in accordance with Section 5.2) on ROCHE's progress in the Commercialization of Licensed Products;

(h) reviewing and approving the initial Detailing plan (which shall be in accordance with Schedule 5.3), if SYNTA exercises the Co-promotion Option;

(i) periodically reviewing the Detailing plans and approving such amendments to the Detailing plans (which shall be in accordance with Schedule 5.3) as the JSC deems appropriate, if SYNTA exercises the Co-promotion Option;

(j) serving as a forum for communication between the Parties regarding other aspects of Development or Commercialization matters relating to the Co-promoted Product(s);

(k) attempting to resolve disputes arising under this Agreement that are referred to the JSC by the JRDC or either of the Parties;

(l) reviewing Uncovered Excess Amounts and determining whether such Uncovered Excess Amounts will be approved; and

(m) performing such other tasks and undertaking such other responsibilities as may be set forth in this Agreement.

3.2.3. Administrative Matters. The JSC shall appoint a chairperson from among its members, who shall be from ROCHE. The Alliance Manager from ROCHE will work with the Chair, and may act as the Chair, and work together with SYNTA's Alliance Manager to develop JSC meeting agendas. The chairperson shall be responsible for calling meetings of the JSC and for leading the meetings. A JSC member of the chairing Party shall serve as secretary of such meetings. The secretary shall promptly prepare and distribute to all members of the JSC draft minutes of the meeting for review and comment, including a list of any actions or decisions approved by the JSC, with the goal of distributing final approved minutes of each JSC meeting within thirty (30) days after the meeting.

3.2.4. Decision Making. Each Party shall have one (1) vote on the JSC. Both Parties must vote in the affirmative to allow the JSC to take any action that requires the vote of the JSC. Action on any matter may be taken at a meeting, by teleconference, videoconference or by written agreement. Either Party may convene a special meeting of the JSC in accordance with Section 3.2.5(c) for the purpose of resolving any disagreement at the JRDC level or other disputes within its jurisdiction. If the JSC is unable to resolve any dispute, or unanimously agree on any other matter before it, such dispute or other matter shall be referred to the Executive Officers pursuant to Section 13.1. If the Executive Officers are unable to resolve the matter under Section 13.1, then [***], provided that such activities are conducted in compliance with the terms and conditions of this Agreement and with the Research Plan and Development Plans, as applicable; provided, further, that [***]; and provided, further, that, certain decisions must be decided unanimously (or, if not able to be decided unanimously, pursuant to Section 13.2 (Alternative Dispute Resolution)), in that [***]:

(a) Increase [***] obligations or reduce [***] rights under this Agreement, including any obligation to devote additional personnel or financial resources to a specific activity or project,

(b) make any amendments to any Research Plan or Development Plan which includes activities by [***],

(c) determine that the events required for the payment of development event payments have not occurred,

(d) determine that it has fulfilled any obligations under this Agreement or that [***] has breached any obligation under this Agreement,

(e) unilaterally make a decision that is expressly stated to require the mutual agreement of the Parties, or

(f) otherwise expand [***] rights or reduce [***] obligations under this Agreement.

3.2.5. Meetings.

(a) The JSC shall meet at least twice annually. The location of JSC meetings shall be as agreed by the Parties, and may be held in person, alternating locations between the Parties, or by telephone conference call or by videoconference.

(b) Each Party shall use reasonable efforts to cause its representatives to attend the meetings of the JSC. In addition, each Party may, at its discretion, invite a reasonable number of non-voting employees, and, with the consent of the other Party, consultants or scientific advisors, to attend meetings of the JSC or the relevant portion thereof; provided that any such consultants or scientific advisors are bound by written obligations of confidentiality that are at least as stringent as those set forth in this Agreement.

(c) Either Party may also request that a special meeting of the JSC be convened for the purpose of resolving disputes in connection with, or for the purpose of reviewing or making a decision pertaining to, any matter within the purview of the JSC by providing written notice to the other Party. Such meeting shall be convened at such time as may be mutually agreed upon by the Parties, but in any event shall be held within fifteen (15) days after the date of such notice.

(d) At its initial meeting, the JSC shall, among other things, (i) review the initial Research Plan and the initial Development Plan, including any associated budgets for the Research Plan and Budgets for the Development Plan, and (ii) discuss the criteria for advancement of Licensed Compounds into the GLP Toxicology Study stage of Development.

ARTICLE IV -REGULATORY MATTERS

4.1. Regulatory Filings.

4.1.1. For any given Licensed Compound, subject to Section 2.4.3, until such time as Development responsibility is transferred to ROCHE pursuant to Section 2.7.1, (i) SYNTA shall be responsible for preparing, filing and maintaining (a) the IND in its own name with respect to such Licensed Compound and (b) any other regulatory filings in its own name that are required in connection with the clinical Development of such Licensed Compound; (ii) ROCHE shall provide SYNTA with all reasonable assistance with respect to such filings and the conduct of preclinical or clinical Development activities leading up to such filings in accordance with the relevant Development Plan; (iii) SYNTA shall own and maintain all such regulatory filings for such Licensed Compounds; and (iv) ROCHE shall have a Right of Reference or Use to such regulatory filings to the extent necessary for the conduct of ROCHE's Development activities under this Agreement.

4.1.2. Except as provided in Section 4.1.1, ROCHE shall own, and be responsible for preparing, filing, obtaining or maintaining, all regulatory filings and Regulatory

Approvals relating to Licensed Compounds and Licensed Products in the Field in the Territory. SYNTA shall have a Right of Reference or Use to such regulatory filings to the extent necessary for the conduct of SYNTA's Development activities under this Agreement.

4.2. Communications with Regulatory Authorities .

4.2.1. ROCHE shall keep SYNTA informed on an ongoing basis through the JRDC or JSC regarding its (or its Affiliate's or Sublicensee's) regulatory strategy, planned regulatory submissions and material communications with Regulatory Authorities in Major Markets with respect to all Licensed Compounds and Licensed Products. If, and to the extent SYNTA is responsible for the filing of the IND and other regulatory filings with respect to a Licensed Compound pursuant to Section 4.1.1, then the obligations of ROCHE set forth in Sections 4.2.1 above shall apply to SYNTA, *mutatis mutandis* until such time as Development responsibility is transferred to ROCHE pursuant to Section 2.7.1, except that such obligations shall apply with regard to all countries of the Territory as opposed to just the Major Markets.

4.2.2. In addition, ROCHE shall provide SYNTA with reasonable advance notice of any material meeting or substantive telephone conference with the FDA, MHLW or EMEA relating to any Licensed Compound or Licensed Product. SYNTA shall have the right to attend and observe (but not participate actively in) any such material meeting or material conference call with the FDA regarding any Licensed Compound or Licensed Product under Development by ROCHE (or by its Affiliates or Sublicensees). In addition, ROCHE shall promptly provide SYNTA with a copy of all material correspondence that ROCHE (or its Affiliate or Sublicensee) receives from, or submits to, any Regulatory Authority in the Major Markets (including contact reports concerning conversations or substantive meetings, contact reports of all Regulatory Authority interactions concerning conversations or substantive meetings, all IND annual reports (including any equivalent filings outside the US), and cover letters of all agency submissions, it being understood that SYNTA may request, and shall then receive, copies of all attachments to any such cover letters) relating to any Licensed Compound or Licensed Product. ROCHE shall also provide SYNTA with any meeting minutes that reflect material communications with any Regulatory Authority in the Major Markets regarding a Licensed Compound or Licensed Product.

4.2.3. Notwithstanding the foregoing, if, and to the extent SYNTA is responsible for the filing of the IND and other regulatory filings with respect to a Licensed Compound pursuant to Section 4.1.1, the rights and obligations of ROCHE set forth in Sections 4.2.2 above shall apply to SYNTA, *mutatis mutandis* until such time as Development responsibility is transferred to ROCHE pursuant to Section 2.7.1.

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4.3. Pharmacovigilance. The Parties agree that they will execute a separate pharmacovigilance agreement, if legally required, specifying the procedures and timeframes for compliance with the applicable Laws pertaining to safety reporting of any Licensed Compound or Licensed Product and its related activities. Should the Parties determine that it is appropriate to execute such a pharmacovigilance agreement, they shall do so within a reasonable period of time following the Effective Date, but no later than initiation of clinical activities by ROCHE.

ARTICLE V - COMMERCIALIZATION; CO-PROMOTION

5.1. General. Subject to SYNTA's Co-promotion Option and the other terms and conditions of this Agreement, ROCHE will have sole responsibility for the Commercialization of Licensed Products in the Field in the Territory, including all costs and expenses relating thereto.

5.2. Commercialization Summary. With respect to each Licensed Product Developed pursuant to this Agreement, commencing with the calendar year in which an application for Regulatory Approval is first filed with respect to each such Licensed Product, and for each subsequent calendar year during next [***] ([***]) years, ROCHE shall provide SYNTA, through the JSC (if the JSC remains in place), for its review and comment, a written summary of the Commercialization activities conducted in the Major Markets other than Japan during the prior year and planned to be conducted in such upcoming year by or on behalf of ROCHE and its Affiliates and Sublicensees with respect to such Licensed Product in such countries. ROCHE shall consider in good faith the reasonable suggestions and comments of SYNTA with respect to such summary.

5.3. Co-promotion. Upon ROCHE's decision to file an application for Regulatory Approval in the United States of a Licensed Product for any Indication other than rheumatoid arthritis (which decision is expected to occur at least [***] ([***]) [***] prior to filing any such application) (such decision, the "Commercialization Decision"), ROCHE shall notify SYNTA in writing within twenty (20) Business Days thereof. For clarity, such obligation of ROCHE to notify SYNTA of any Commercialization Decision shall apply to all Licensed Products with respect to which the Commercialization Decision is made. On a Licensed Product-by-Licensed Product basis, SYNTA shall have the right to participate in the Co-promotion of any Licensed Product in the United States for the applicable Indication (the "Co-promotion Option"). SYNTA may exercise its Co-promotion Option by providing written notice to ROCHE within [***] ([***]) [***] after receipt of ROCHE's Commercialization Decision notice, in which event the minimum terms set forth on Schedule 5.3 shall apply. If SYNTA does not exercise its Co-promotion Option within such [***] ([***]) [***] period, then SYNTA shall have no further right to elect to participate in the Co-promotion of such Licensed Product in the United States for the applicable Indication; provided, however, that the Co-promotion Option shall continue to apply to any and all subsequent Licensed Products, and the failure of SYNTA to exercise its Co-promotion Option with respect to any Licensed Product for any Indication shall not prevent or waive SYNTA's right to exercise its Co-promotion Option with respect to such Licensed Product for any other Indication or with respect to any other Licensed Product.

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5.4. Labeling. In the event of SYNTA's Co-promotion of any Licensed Product in accordance with Section 5.3, ROCHE shall include on all secondary packaging, literature, labels and other printed matter for Licensed Products used in clinical Development or in Commercialization, to the extent permitted by applicable Law, the SYNTA name and logo so as to acknowledge that the Licensed Products were developed under license from and together with SYNTA.

ARTICLE VI — LICENSE GRANTS; EXCLUSIVITY

6.1. Research Licenses.

6.1.1. SYNTA hereby grants to ROCHE a co-exclusive (with SYNTA to enable SYNTA to perform its obligations under the Research Program during the Research Term), worldwide, paid-up right and license, without the right to grant sublicenses (except in accordance with Section 6.4), under the SYNTA Intellectual Property solely to enable ROCHE to perform ROCHE's obligations under the Research Program during the Research Term.

6.1.2. ROCHE hereby grants to SYNTA a co-exclusive (with ROCHE to enable ROCHE to perform its obligations under the Research Program during the Research Term), worldwide, paid-up right and license, without the right to grant sublicenses, other than to its Affiliates (except in accordance with Section 6.4), under the ROCHE Intellectual Property solely to enable SYNTA to perform its obligations under the Research Program during the Research Term.

6.2. Development and Commercialization License to ROCHE. SYNTA hereby grants to ROCHE an exclusive (even as to SYNTA), worldwide, royalty-bearing right and license, with the right to grant sublicenses (solely in accordance with Section 6.4), under the SYNTA Intellectual Property to Develop, Manufacture, have Manufactured, use, Commercialize and import Licensed Compounds and Licensed Products in the Field in the Territory, provided that SYNTA shall retain rights sufficient to enable SYNTA to perform its Development and Manufacturing obligations with respect to Licensed Compounds and Licensed Products hereunder, and to participate in the Co-promotion of Co-promoted Products pursuant to Section 5.3.

6.3. Development and Commercialization License to SYNTA. ROCHE hereby grants to SYNTA a co-exclusive (with ROCHE), worldwide, royalty-free right and license, without the right to grant sublicenses (except in accordance with Section 6.4), under the ROCHE Intellectual Property to Develop, Manufacture, have Manufactured, use, Commercialize and import Licensed Compounds and Licensed Products in the Field in the Territory, solely to the extent necessary to enable SYNTA to perform its Development and Manufacturing obligations with respect to Licensed Compounds and Licensed Products hereunder, and to participate in the Co-promotion of Co-promoted Products pursuant to Section 5.3.

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6.4. Sublicensing Rights.

6.4.1. ROCHE shall have the right to grant sublicenses under the rights granted to it under Section 6.2 to its Affiliates (with the right to sublicense) and to Third Parties (with no further right to sublicense); provided, that in the Major Markets ROCHE shall have the right to grant sublicenses under the rights granted to it under Section 6.2 to Third Parties only upon prior written consent of SYNTA, such consent not the unreasonably withheld. ROCHE shall provide to SYNTA a fully-executed copy of any agreement (redacted as necessary to protect confidential or commercially sensitive information) reflecting such sublicense (a) promptly after the execution thereof if such sublicense impacts upon one or more of the Major Markets, and (b) upon request by SYNTA if such sublicense impacts upon any country other than a Major Market. If ROCHE grants a sublicense, all of the terms and conditions of this Agreement shall apply to the sublicensee to the same extent as they apply to ROCHE for all purposes of this Agreement. ROCHE assumes full responsibility for the performance of all obligations so imposed on such sublicensee and will itself pay and account to SYNTA for all payments due under this Agreement by reason of operation of any such sublicense.

6.4.2. SYNTA may not grant sublicenses under the rights granted to it in Section 6.3 without the prior written consent of ROCHE, except (a) to SYNTA's Affiliates, and (b) to Third Parties solely to the extent necessary to carry out SYNTA's Research, Development or Manufacturing obligations. SYNTA shall guarantee the performance of its Affiliates and Sublicensees with respect to any sublicense granted pursuant to this Section 6.4.2.

6.5. Rights Retained by the Parties. Any rights of SYNTA or ROCHE, as the case may be, not expressly granted to the other Party pursuant to this Agreement shall be retained by such Party. Without limiting the generality of the foregoing, no right or license is granted to ROCHE under the SYNTA Intellectual Property to Develop or Commercialize any composition that is not a Licensed Compound or Licensed Product.

6.6. Exclusivity. Each Party agrees that, during the Research Term this Agreement shall serve as the exclusive means through which such Party and its Affiliates may, (i) either alone or in collaboration with a Third Party, engage in the Research, Development, Manufacture, or Commercialization of any compound which such Party or its Affiliates knows or believes to be a CRAC Channel Inhibitor, or any product containing such a compound in the Field in the Territory, or (ii) grant a license to, or otherwise assist or contract with, any Third Party, to Research, Develop, Manufacture, or Commercialize any compound which such Party or its Affiliates knows or believes to be a CRAC Channel Inhibitor, or any product containing such a compound in the Field in the Territory.

6.7. Section 365(n) of the Bankruptcy Code. All rights and licenses granted pursuant to any section of this Agreement, including pursuant to Sections 6.1, 6.2 and 6.3, are rights and licenses to "intellectual property" (as defined in Section 101(35A) of title 11 of the United States Code (the "Bankruptcy Code")). Each Party shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code.

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ARTICLE VII -FINANCIAL PROVISION; AUDIT RIGHTS

7.1. Initial License Payment. ROCHE will make a non-refundable, non-creditable payment to SYNTA of sixteen million dollars ($16,000,000) within ten (10) Business Days after the Effective Date and receipt of invoice from SYNTA.

7.2. Research Funding.

7.2.1. FTE Funding. In order to fund SYNTA's Research activities hereunder performed by SYNTA FTEs, ROCHE shall pay to SYNTA a total of nine million dollars ($9,000,000), to be paid in eight (8) payments, each in the amount of one million one hundred twenty-five thousand dollars ($1,125,000), each such payment due and payable [***] ([***]) days after the later of (a) the first day of each Calendar Quarter, starting January 1, 2009, and (b) receipt by ROCHE of an invoice for such sum.

7.2.2. Third Party Costs. For the calendar year 2009, ROCHE will reimburse SYNTA for the Third Party costs incurred by SYNTA under the Research Plan, for which the budget is [***] dollars ($[***]). For the calendar year 2010, ROCHE will reimburse SYNTA for SYNTA's Third Party costs incurred under the Research Plan, for which the budget is [***] dollars ($[***]). Within thirty (30) days following the end of each Calendar Quarter during the Research Term, SYNTA shall provide an accounting to ROCHE of the Third Party costs SYNTA actually incurred under the Research Plan during such Calendar Quarter. Roche shall reimburse SYNTA such amount up to the limits set forth in this paragraph 7.2.2, within [***] ([***]) days after receipt of such accounting and an invoice for such amount. Any amounts in excess of the limits in a given year shall be the responsibility of SYNTA.

7.3. Co-promotion Activities. If SYNTA exercises its right to participate in the Co-promotion of one or more Licensed Products in the United States pursuant to Section 5.3, then ROCHE shall reimburse SYNTA for costs of such Co-promotion, as set forth on Schedule 5.3.

7.4. Development Event Payments. ROCHE shall make the following non-refundable, non-creditable payments to SYNTA upon achievement of any of the events set forth below with respect to any Licensed Product:

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		Payment (US$ millions)		
Development Event		First Indication to Achieve the Relevant Development Event	Second Indication to Achieve the Relevant Development Event	Third Indication to Achieve the Relevant Development Event
(a)	Initiation of GLP Toxicology Study	$ [***]	n/a	n/a
(b)	Filing of an IND anywhere in the world	$ [***]	n/a	n/a
(c)	Initiation of a Phase 2a Clinical Trial	$ [***]	$ [***]	$ [***]
(d)	Initiation of a Phase 2b Clinical Trial	$ [***]	$ [***]	$ [***]
(e)	Initiation of a Phase 3 Clinical Trial	$ [***]	$ [***]	$ [***]
(f)	Filing of an NDA in the United States	$ [***]	$ [***]	$ [***]
(g)	Filing of an NDA in any Major EU Country (or with the EMEA)	$ [***]	$ [***]	$ [***]
(h)	Filing of an NDA in Japan	$ [***]	$ [***]	$ [***]
(i)	Regulatory Approval in the United States	$ [***]	$ [***]	$ [***]
(j)	Regulatory Approval in a Major EU Country (or by the EMEA)	$ [***]	$ [***]	$ [***]
(k)	Regulatory Approval in Japan	$ [***]	$ [***]	$ [***]

Each of the event payment amounts set forth in the table above shall be paid (i) as set forth above upon the first occurrence of such event, and (ii) at fifty percent (50%) of the amount

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set forth above with respect to each of the second and third occurrences of such event by another Licensed Product.

For the sake of clarity (A) the same Indication need not achieve each development event in a column (Example 1 below); (B) the same Licensed Product need not achieve each development event in a row (Example 2 below); and (C) no payment shall be made with respect to the occurrence of an event for which a payment had been made with respect to the prior occurrence of the same event with the same Licensed Product for the same Indication (Example 3 below). By way of example,

- *Example 1:* If the first Initiation of a Phase 2a Clinical Trial is for Licensed Product A in Indication rheumatoid arthritis, $[***] will be due (row (c), first column times 100%). If the second Initiation of a Phase 2a Clinical Trial is for Licensed Product A in Indication asthma, $[***] will be due (row (c), second column times 100%). If the third Initiation of a Phase 2a Clinical Trial is for Licensed Product B in Indication asthma, $[***] will be due (row (c), first column times 50%).

- *Example 2:* If the first Initiation of a Phase 2a Clinical Trial is for Licensed Product A in Indication rheumatoid arthritis, $[***] will be due (row (c), first column times 100%). If the second Initiation of a Phase 2a Clinical Trial is for Licensed Product B in Indication rheumatoid arthritis, $[***] will be due (row (c), first column times 50%). If the third Initiation of a Phase 2a Clinical Trial is for Licensed Product B in Indication asthma, $[***] will be due (row (c), second column times 100%).

- *Example 3:* If the first Initiation of a Phase 2a Clinical Trial is for Licensed Product A in Indication rheumatoid arthritis, $[***] will be due (row (c), first column times 100%). If the second (or subsequent) Initiation of a Phase 2a Clinical Trial is for Licensed Product A in Indication rheumatoid arthritis, no milestone payment shall be due with respect to such Initiation.

On a Licensed Product-by-Licensed Product basis, the achievement of a development event in any of rows (f) through (k) shall result in a simultaneous obligation to pay all payments in rows (a) through (e) that had not been previously paid and which are in the same column as the payment then to be made. On a Licensed Product-by-Licensed Product basis, and a country-by-country or regional basis, the achievement of a development event in any of rows (i) through (k) shall result in a simultaneous obligation to pay the relevant earlier milestone in rows (f) through (h), as applicable, that had not previously been paid and which are in the same column as the payment then to be made.

Upon achievement by or on behalf of ROCHE, its Affiliates or Sublicensees of any of the foregoing development events, ROCHE shall promptly (but in no event more than ten (10) Business Days following achievement thereof) notify SYNTA and shall pay to SYNTA all

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corresponding development event payments within [***] ([***]) days after occurrence of the applicable event and receipt of an invoice from SYNTA.

If SYNTA is the Party that achieves any of the development events set forth above, SYNTA shall provide notice to ROCHE promptly upon achievement of each such development event and shall deliver to ROCHE an invoice for such event. ROCHE shall pay the applicable development event payment within [***] ([***]) days of receipt of invoice therefor.

7.5. Sales Event Payments. In addition to all other amounts payable under this Agreement, ROCHE shall make the following non-refundable, non-creditable payments to SYNTA based on aggregate worldwide annual (on a calendar year basis) Net Sales, on a Licensed Product-by-Licensed Product basis for up to three (3) Licensed Products, upon the first achievement of the events set forth below by each of such Licensed Products:

	Sales Event	**Payments (in US$ millions)**
(a)	Aggregate worldwide annual Net Sales of such Licensed Product reaches or exceeds $[***] (≥ $[***])	$ [***]
(b)	Aggregate worldwide annual Net Sales of such Licensed Product reaches or exceeds $[***] (≥ $[***])	$ [***]
(c)	Aggregate worldwide annual Net Sales of such Licensed Product reaches or exceeds $[***] (≥ $[***])	$ [***]
(d)	Aggregate worldwide annual Net Sales of such Licensed Product reaches or exceeds $[***] (≥ $[***])	$ [***]

For purposes of clarity, the sales event payments set forth in this Section 7.5 shall be paid only once for each Licensed Product, upon the first achievement of the applicable sales event.

Upon achievement by ROCHE, its Affiliates, Sublicensees or ROCHE Entities of any of the foregoing sales events, ROCHE shall promptly (but in no event more than thirty (30) days following achievement thereof) notify SYNTA and shall pay to SYNTA the corresponding sales event payment within [***] ([***]) days after occurrence of the applicable event and receipt of an invoice from SYNTA.

7.6. Licensed Product Royalties.

7.6.1. ROCHE shall pay to SYNTA royalties on the aggregate worldwide annual (on a calendar year basis) Net Sales of each Licensed Product in the Territory, on a Licensed Product-by-Licensed Product basis, as follows:

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Aggregate Worldwide Annual Net Sales of Licensed Product		Royalty Rate
(i)	First $[***]	[***]%
(ii)	Portion above $[***] and up to and including $[***]	[***]%
(iii)	Portion above $[***] and up to and including $[***]	[***]%
(iv)	Portion above $[***]	[***]%

7.6.2. Applicability of Royalty Rates to Net Sales in the Territory. Royalties payable pursuant to this Section 7.6 shall be paid at the rate applicable to the portion of Net Sales within each of the Net Sales levels during the applicable calendar year for such Licensed Product. For example, if, during a calendar year, aggregate worldwide annual Net Sales of a particular Licensed Product were equal to $[***], then the royalties payable by ROCHE would be calculated by adding (i) the royalties with respect to the first $[***] at the first-level percentage of [***] percent ([***]%) ($[***]), and (ii) the royalties with respect to the next $[***] at the second-level percentage of [***] percent ([***]%) ($[***]), for a total royalty of $[***].

7.6.3. Royalty Term and Adjustments.

(a) ROCHE's royalty obligations to SYNTA pursuant to this Section 7.6 shall commence on a country-by-country and Licensed Product-by-Licensed Product basis on the First Commercial Sale in such country of such Licensed Product and shall expire on a country-by-country basis and Licensed Product-by-Licensed Product basis on the later of: (A) the expiration of the last Valid Claim of the SYNTA Patent Rights, ROCHE Patent Rights and Joint Patent Rights Covering such Licensed Product in such country, or (B) the [***] ([***]) anniversary of the date of the First Commercial Sale of such Licensed Product in such country by or on behalf of ROCHE or any of its Affiliates or Sublicensees to a Third Party who is not a Sublicensee (the "Royalty Term"). Thereafter, the licenses granted to ROCHE shall be fully paid-up, royalty-free and non-exclusive with respect to such Licensed Product in such country, on a Licensed Product-by-Licensed Product and country-by-country basis.

(b) Notwithstanding the foregoing, the royalty rate applicable to such Licensed Product sold in any country in the Territory shall be reduced to [***] percent ([***]%) of the rate otherwise payable pursuant to Section 7.6.1 above during any portion of the Royalty Term when there is no Valid Claim of the SYNTA Patent Rights, ROCHE Patent Rights or Joint Patent Rights Covering such Licensed Product in such country; provided that such reduction shall not apply if the Licensed Product is entitled to Marketing Exclusivity in such country and there is no Generic Product on the market in such country.

7.6.4. Royalty Adjustment in Case of Generic Competition. If, during a given Calendar Quarter there is Generic Competition with respect to a particular Licensed Product in a country of the Territory, then the royalties on Net Sales of the affected Licensed Product payable

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pursuant to this Section 7.6 in such country for such Calendar Quarter shall be reduced by [***] percent ([***]%) of the amounts otherwise payable pursuant to Section 7.6.1. For clarity, the determination of whether there is Generic Competition with respect to a particular Licensed Product in a country and, if so, the market share of such Generic Product(s) in such country, shall be made on a Calendar Quarter-by-Calendar Quarter basis. For example, if with respect to a particular Licensed Product in a country there is Generic Competition with respect to such Licensed Product in a Calendar Quarter then the applicable royalty reductions set forth in this Section 7.6.4 shall apply for such Calendar Quarter, and if, with respect to the same Licensed Product in the same country there is no Generic Competition during any subsequent Calendar Quarter, then the royalty reductions set forth in this Section 7.6.4 shall not be applicable in any such subsequent Calendar Quarter. Notwithstanding any of the foregoing, if both deductions under Section 7.6.3 and this Section 7.6.4 apply for a Licensed Product in a given country, then ROCHE may apply only one of the two deductions for such Licensed Product in such country.

7.6.5. Third Party Payments. ROCHE shall be responsible for obtaining, and paying or having paid any consideration owed to any Third Party to license or otherwise secure and maintain, Third Party Patent Rights necessary to manufacture or sell Licensed Products in the Field in the Territory. ROCHE shall have the right to deduct a maximum of [***] percent ([***]%) of such royalties actually paid to such Third Party with respect to such license to permit the manufacture or sale of Licensed Product(s) in the Field in a country(ies), from royalty payments otherwise due and payable by ROCHE to SYNTA under this Agreement with respect to such Licensed Product(s) in such country(ies), on a Licensed Product-by-Licensed Product and country-by-country basis; provided, however, that (i) in no event shall the deduction permitted by this Section 7.6.5 reduce the royalties payable to SYNTA with respect to any such Licensed Product(s) in such country(ies) to less than [***] percent ([***]%) of the royalties otherwise due after any deduction pursuant to Section 7.6.3 or 7.6.4.

7.6.6. Limitation on Aggregate Deduction. In no event shall the deductions permitted by Sections 7.6.3, 7.6.4 and this 7.6.5, in the aggregate, reduce the royalties payable to SYNTA with respect to any such Licensed Product(s) in such country(ies) to less than [***] percent ([***]%) of the royalties otherwise due for such Licensed Product(s) in such country(ies) pursuant to Section 7.6.1, on a Licensed Product-by-Licensed Product and country-by-country basis.

7.7. Accounting and Reporting.

7.7.1. Timing of Payments. ROCHE shall calculate royalties on Net Sales quarterly as of March 31, June 30, September 30 and December 31 (each being the last day of an "Accounting Period") and shall pay royalties on Net Sales within [***] ([***]) days after the end of each Accounting Period in which such Net Sales occur.

7.7.2. Late Payment. Any payment under this Agreement that is not paid on or before the date such payment is due shall bear interest, to the extent permitted by applicable Law, at [***] above the average one-month London Interbank Offered Rate (LIBOR), as reported by Reuters for time to time, calculated on the number of days such payment is overdue. In addition,

ROCHE shall reimburse SYNTA for all costs and expenses, including attorneys' fees and legal expenses, incurred in the collection of late payments, provided that the foregoing shall not apply with respect to payments disputed in good faith by ROCHE unless SYNTA is successful in such dispute or ROCHE ceases to dispute such payments.

7.7.3. Method of Payment. Royalties on Net Sales and all other amounts payable by ROCHE hereunder shall be paid by or on behalf of ROCHE in U.S. Dollars. All payments due to SYNTA hereunder shall be made directly from an account located in either (at ROCHE's option) the United States or Switzerland to account(s) designated by SYNTA.

7.7.4. Currency Conversion. Whenever calculating royalties requires conversion from any currency, ROCHE shall make such conversion as follows:

(a) When calculating the Net Sales for countries other than the United States, ROCHE shall convert the amount of such sales in currencies other than Swiss Francs into Swiss Francs using ROCHE's then current standard practices actually used on a consistent basis in preparing its audited financial statements.

(b) Upon converting the amount of Adjusted Gross Sales into Swiss Francs, ROCHE shall convert into US Dollars (or other currency), using the quarterly average rate (currently Reuters) at the last working day for the applicable period.

7.7.5. Reporting. With each payment ROCHE shall provide SYNTA in writing for the relevant Calendar Quarter on a Licensed Product-by-Licensed Product basis the following information with respect to each of the following territories: (1) the United States, (2) the Major Markets (other than the United States) and Canada, and (3) all territories other than those set forth in the foregoing clause (1) and (2):

(a) Net Sales and Adjusted Gross Sales;

(b) Adjustments made pursuant to Section 7.6; and

(c) Total royalty payable to SYNTA.

The report for the fourth Calendar Quarter shall include a list of all countries in which a Licensed Product is sold in the Territory for the applicable calendar year.

7.7.6. United States Dollars. All dollar ($) amounts specified in this Agreement are United States dollar amounts.

7.7.7. Nonrefundable. All payments made by ROCHE to SYNTA under this Agreement shall be non-refundable and non-creditable, except as expressly set forth in Sections 2.5.2(f), 2.5.4 and 7.9.2.

7.8. Taxes. Any tax required to be withheld by ROCHE under the Laws of any country for the account of SYNTA shall be promptly paid by ROCHE for and on behalf of

SYNTA to the appropriate government authority, and ROCHE shall furnish SYNTA with proof of payment of such tax. Any such tax actually paid on SYNTA's behalf shall be deducted from royalty payments due to SYNTA hereunder. ROCHE shall assist SYNTA in minimizing the withholding taxes applicable to any payment made by ROCHE and in claiming tax refunds at SYNTA's request.

7.9. Auditing.

7.9.1. Audit Rights.

(a) ROCHE shall keep, and shall require its Affiliates and Sublicensees to keep, for [***] ([***]) years, full, true and accurate books of account containing all particulars that may be necessary for the purpose of calculating all royalties and all other amounts payable under this Agreement. Such books of accounts shall be kept at ROCHE's or the relevant Affiliate's or Sublicensee's principal place of business. At the expense of SYNTA, SYNTA has the right to engage an independent, certified public accountant reasonably acceptable to both Parties to perform, on behalf of SYNTA, an audit of such books and records of ROCHE and its Affiliates and Sublicensees, that are deemed necessary by such accountant to report on Net Sales of Licensed Products for the period or periods requested by SYNTA and the correctness of any report or payments made under this Agreement. Such accountant shall not have the authority to interpret this Agreement.

(b) Upon timely request and at least [***] ([***]) days prior written notice from SYNTA, such audit shall be conducted in the countries specifically requested by SYNTA, during regular business hours in such a manner as to not unnecessarily interfere with ROCHE's normal business activities, and shall be limited to results in the [***] ([***]) calendar years prior to audit notification.

(c) Such audit shall not be performed more frequently than once per calendar year nor more frequently than once with respect to records covering any specific period of time.

(d) All information, data and documents herein referred to shall be used only for the purpose of verifying royalty statements, shall be treated as ROCHE Confidential Information subject to the obligations of this Agreement and need neither be retained more than the longer of one (1) year after completion of an audit hereof, if an audit has been requested; nor more than [***] ([***]) years from the end of the calendar year to which each shall pertain; nor more than [***] ([***])[***] after the date of termination of this Agreement.

(e) The final audit report shall be shared by ROCHE and SYNTA.

7.9.2. Over- or Underpayment. If the audit reveals an underpayment, ROCHE shall reimburse SYNTA for the amount of the underpayment within [***] ([***]) days with interest as set forth in Section 7.7.2. If the audit reveals an overpayment, ROCHE shall have the right to credit the amount of such overpayment against the next royalty payment payable to

SYNTA hereunder. ROCHE shall pay for the audit costs if the audit reveals that an underpayment of ROCHE exceeds [***] percent ([***]%).

7.9.3. Duration of Audit Rights. The failure of SYNTA to request verification of any royalty calculation within the period during which the corresponding records must be maintained under Section 7.9.1 will be deemed acceptance of the royalty payments and reports.

ARTICLE VIII -INTELLECTUAL PROPERTY MATTERS

8.1. Know-How.

8.1.1. Ownership. Each Party shall exclusively own all inventions conceived or reduced to practice solely by employees, agents and consultants of such Party or its Affiliates. The Parties shall jointly own all Joint Know-how, including all inventions conceived or reduced to practice by one or more employees, agents or consultants of SYNTA or any of its Affiliates, on the one hand, and one or more employees, agents or consultants of ROCHE or any of its Affiliates, on the other hand ("Joint Inventions"). Only following the end of the Research Term, each Party shall have the right to use and license Joint Know-how and Joint Patent Rights to its Affiliates or any Third Party, without the consent of or accounting to the other Party, so long as such use or license is subject to the licenses granted pursuant to this Agreement and is otherwise consistent with this Agreement.

8.1.2. Inventorship. The determination of inventorship shall be made in accordance with United States patent laws.

8.2. Prosecution and Maintenance of Patent Rights.

8.2.1. Prosecution of SYNTA Patent Rights. SYNTA shall have the first right to prepare, file, prosecute and maintain SYNTA Patent Rights, [***]. ROCHE shall be given access to all documentation, filings and communications to or from the respective patent offices in connection with the prosecution and maintenance of the SYNTA Patent Rights, at reasonable times and upon reasonable written notice, which access shall only include review of said documents but not receipt of copies thereof. SYNTA shall keep ROCHE informed of the status of all pending patent applications included in the SYNTA Patent Rights, and ROCHE shall have the right to comment on the prosecution of such pending patent applications and SYNTA, its agents and attorneys will consider in good faith timely suggestions and comments of ROCHE regarding any such activities. SYNTA shall not discontinue prosecution or maintenance of any SYNTA Patent Rights (including selection of countries for foreign filing or entry into the PCT National Stage) without at least [***] ([***]) [***] prior written notice to ROCHE. If SYNTA decides to discontinue prosecution or maintenance of any SYNTA Patent Rights, ROCHE shall have the option to assume responsibility for prosecuting and maintaining such SYNTA Patent Rights, at ROCHE's sole expense, and in such case, except for a change in responsibility for prosecuting and maintaining SYNTA Patent Rights under this Section 8.2.1, no changes in ownership or licensing terms pertaining to any SYNTA Patent Rights shall occur.

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8.2.2. Prosecution of ROCHE Patent Rights. ROCHE shall have the first right to prepare, file, prosecute and maintain ROCHE Patent Rights, [***]. SYNTA shall have access to all documentation, filings and communications to or from the respective patent offices in connection with the prosecution and maintenance of the ROCHE Patent Rights, at reasonable times and upon reasonable written notice, which access shall only include review of said documents but not receipt of copies thereof. ROCHE shall keep SYNTA informed of the status of all pending patent applications included in the ROCHE Patent Rights that pertain to any Collaboration Compound or Licensed Product, and SYNTA shall have the right to comment on the prosecution of such pending patent applications and ROCHE, its agents, and attorneys will consider in good faith timely suggestions and comments of SYNTA regarding any such activities. ROCHE shall not discontinue prosecution or maintenance of any ROCHE Patent Rights (including selection of countries for foreign filing or entry into the PCT National Stage) without at least [***] ([***]) prior written notice to SYNTA. If ROCHE decides to discontinue prosecution or maintenance of any ROCHE Patent Rights that pertain to any Collaboration Compound, Licensed Compound or Licensed Product, SYNTA shall have the option to continue to prosecute and maintain such ROCHE Patent Rights, at SYNTA's sole expense, and in such case, except for a change in responsibility for prosecuting and maintaining the ROCHE Patent Rights under this Section 8.2.2, no changes in ownership or licensing terms pertaining to any ROCHE Patent Rights shall occur.

8.2.3. Prosecution of Joint Patent Rights. SYNTA shall be responsible for preparing, filing, prosecuting, or maintaining Joint Patent Rights in appropriate countries in the Territory. The out-of-pocket costs and expenses incurred to obtain, prosecute and maintain Joint Patent Rights shall be [***]; provided that [***] may elect, at its sole discretion, on a country-by-country basis, to discontinue paying such out-of-pocket expenses with respect to any Joint Patent Right and in such case all licenses granted hereunder to [***] under any such Joint Patent Right shall immediately terminate. SYNTA shall keep ROCHE informed of the status of all pending applications disclosing Joint Inventions, and shall consider in good faith all of ROCHE's comments regarding any aspect of such patent prosecution. SYNTA shall not discontinue prosecution or maintenance of any Joint Patent Right without at least [***] ([***]) prior written notice to ROCHE. If SYNTA decides to discontinue prosecution or maintenance of any Joint Patent Rights, ROCHE shall have the option to continue to prosecute and maintain such Joint Patent Rights, at ROCHE's sole expense, and in such case, except for the change in responsibility for prosecuting and maintaining Joint Patent Rights under this Section 8.2.3, no changes in ownership or licensing terms pertaining to any such Joint Patent Rights shall occur.

8.2.4. Procedures. If the Parties deem it appropriate, the Parties may form a patent committee or elect to have the JRDC serve as a forum for the communication between the Parties regarding the handling of such patent prosecution matters as set forth in this Section 8.2.

8.2.5. Payments. Following the end of each Calendar Quarter, the Party entitled to reimbursement pursuant to this Section 8.2 shall provide to the other Party a reasonable accounting of the reimburseable expenses incurred during such Calendar Quarter. Within sixty (60) days after receipt of an invoice therefor, the other Party shall pay such reimburseable

expenses. The provisions of Section 2.5.2 shall apply *mutatis mutandis* to each Party and such reimburseable expenses.

8.2.6. Patent Term Extensions.

(a) SYNTA and ROCHE shall determine together whether to seek patent term extensions or supplemental patent protection, including supplementary protection certificates, in any country in the Territory in relation to the Licensed Products Covered by SYNTA Patent Rights and Joint Patent Rights. SYNTA and ROCHE shall cooperate in connection with all such activities.

(b) Subject to Section 8.2.6(a), ROCHE shall have the exclusive right to seek patent term extensions or supplemental patent protection, including supplementary protection certificates, in any country in the Territory in relation to the Licensed Products Covered by ROCHE Patent Rights. SYNTA and ROCHE shall cooperate in connection with all such activities, and ROCHE, its agents and attorneys will consider in good faith timely suggestions and comments of SYNTA regarding any such activities, provided that all final decisions under this Section 8.2.6(b) shall be made by ROCHE.

8.3. Third Party Infringement.

8.3.1. Notice. Each Party shall promptly report in writing to the other Party during the Term any known or suspected (a) infringement of any of the SYNTA Patent Rights, ROCHE Patent Rights or Joint Patent Rights, or (b) unauthorized use or misappropriation of any of the SYNTA Know-how, ROCHE Know-how, or Joint Know-how (each of (a) and (b), an "Infringement Claim") of which such Party becomes aware, and shall provide the other Party with all available evidence supporting such known or suspected infringement or unauthorized use or misappropriation.

8.3.2. Right to Enforce the SYNTA Intellectual Property.

(a) SYNTA shall have the first right, but not the obligation, to initiate a suit or take other appropriate action that it believes is reasonably required to protect (i.e., prevent or abate actual or threatened infringement or misappropriation of) or otherwise enforce the SYNTA Intellectual Property (other than Joint Intellectual Property). Any suit by SYNTA shall be either in the name of SYNTA or its Affiliate, the name of ROCHE or its Affiliate, or jointly by ROCHE, SYNTA and their respective Affiliates, as may be required by applicable Law if the relevant court would otherwise lack jurisdiction if such Party or its Affiliate were absent from such suit. For this purpose, ROCHE agrees to be joined as a party to the suit if so required and shall execute such legal papers and cooperate in the prosecution of such suit as may be reasonably requested by SYNTA, provided that SYNTA shall promptly reimburse all out-of-pocket expenses (including reasonable attorneys' fees and expenses) actually incurred by ROCHE in connection with such cooperation.

(b) If SYNTA does not initiate a suit or take other appropriate action that it has the initial right to initiate or take pursuant to Section 8.3.2(a), then ROCHE may, in its

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discretion, provide SYNTA with notice of ROCHE's intent to initiate a suit or take other appropriate action. If ROCHE provides such notice and SYNTA does not initiate a suit or take such other appropriate action within [***] ([***]) [***] ([***] ([***]) [***] in the case of a Paragraph IV Certification) after receipt of such notice from ROCHE, then ROCHE shall have the right to initiate a suit or take other appropriate action that it believes is reasonably required to protect the SYNTA Intellectual Property solely owned by SYNTA; provided, however, that ROCHE shall not initiate a lawsuit or take other enforcement action without first consulting with SYNTA. Any suit by ROCHE shall be either in the name of ROCHE or its Affiliate, the name of SYNTA or its Affiliate, or jointly by ROCHE, SYNTA and their respective Affiliates, as may be required by applicable Law if the relevant court would otherwise lack jurisdiction if such Party or its Affiliate were absent from such suit. For this purpose, SYNTA agrees to be joined as a party to the suit if so required and shall execute such legal papers and cooperate in the prosecution of such suit as may be reasonably requested by ROCHE, provided that ROCHE shall promptly reimburse all out-of-pocket expenses (including reasonable attorneys' fees and expenses) actually incurred by SYNTA in connection with such cooperation.

8.3.3. Right to Enforce the ROCHE Intellectual Property.

(a) ROCHE shall have the first right, but not the obligation, to initiate a suit or take other appropriate action that it believes is reasonably required to protect (i.e., prevent or abate actual or threatened infringement or misappropriation of) or otherwise enforce the ROCHE Intellectual Property (other than Joint Intellectual Property). Any suit by ROCHE shall be either in the name of ROCHE or its Affiliate, the name of SYNTA or its Affiliate, or jointly by ROCHE, SYNTA and their respective Affiliates, as may be required by applicable Law if the relevant court would otherwise lack jurisdiction if such Party or its Affiliate were absent from such suit. For this purpose, SYNTA agrees to be joined as a party to the suit if so required and shall execute such legal papers and cooperate in the prosecution of such suit as may be reasonably requested by ROCHE, provided that ROCHE shall promptly reimburse all out-of-pocket expenses (including reasonable attorneys' fees and expenses) actually incurred by SYNTA in connection with such cooperation.

(b) If ROCHE does not initiate a suit or take other appropriate action that it has the initial right to initiate or take pursuant to Section 8.3.3(a), then SYNTA may, in its discretion, provide ROCHE with notice of SYNTA's intent to initiate a suit or take other appropriate action. If SYNTA provides such notice and ROCHE does not initiate a suit or take such other appropriate action within [***] ([***]) [***] ([***] ([***]) [***] in the case of a Paragraph IV Certification) after receipt of such notice from SYNTA, then SYNTA shall have the right to initiate a suit or take other appropriate action that it believes is reasonably required to protect the ROCHE Intellectual Property solely owned by ROCHE; provided, however, that SYNTA shall not

initiate a lawsuit or take other enforcement action without first consulting with ROCHE. Any suit by SYNTA shall be either in the name of SYNTA or its Affiliate, the name of ROCHE or its Affiliate, or jointly by ROCHE, SYNTA and their respective Affiliates, as may be required by applicable Law if the relevant court would otherwise lack jurisdiction if such Party or its Affiliate were absent from such suit. For this purpose, ROCHE agrees to be joined as a party to the suit and shall execute such legal papers and cooperate in the prosecution

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of such suit as may be reasonably requested by SYNTA, provided that SYNTA shall promptly reimburse all out-of-pocket expenses (including reasonable attorneys' fees and expenses) actually incurred by ROCHE in connection with such cooperation.

8.3.4. Right to Enforce the Joint Patent Rights and Joint Know-how. Responsibility for protecting (i.e., preventing or abating actual or threatened infringement or misappropriation of) or otherwise enforcing the Joint Patent Rights and the Joint Know-how shall be determined in the same manner as the SYNTA Patent Rights. The enforcing Party shall keep the other Party informed of the status of all enforcement activities, and shall consider in good faith all comments of the other Party regarding any aspect of such enforcement. The enforcing Party shall not discontinue enforcement of Joint Patent Right or Joint Know-how without providing prior written notice to, and consultation with, the non-enforcing Party.

8.3.5. Conduct of Certain Actions; Costs. The Party initiating suit shall have the sole and exclusive right to select counsel for any suit initiated by it pursuant to Section 8.3.2, 8.3.3 or 8.3.4. The initiating Party shall assume and pay all of its own out-of-pocket costs incurred in connection with any litigation or proceedings initiated by it pursuant to Section 8.3.2, 8.3.3 or 8.3.4, including the fees and expenses of the legal counsel selected by it. The other Party shall have the right to participate and be represented in any such suit by the initiating Party's counsel, or by its own legal counsel at its own expense.

8.3.6. Recoveries. If ROCHE assumes control over any suit in response to any Infringement Claim, SYNTA shall be entitled, at its option, to (a) treat as Net Sales or (b) receive [***] percent ([***]%) of, any damages, settlements, accounts of profits, or other financial compensation recovered by ROCHE from a Third Party based upon any suit initiated by ROCHE in response to such Infringement Claim after deducting ROCHE's actual out-of-pocket expenses (including reasonable attorneys' fees and expenses) incurred in pursuing such Infringement Claim, and ROCHE may retain the balance. If SYNTA assumes control over any suit in response to any Infringement Claim, ROCHE shall be entitled to receive [***] percent ([***]%) of any damages, settlements, accounts of profits, or other financial compensation recovered from a Third Party based upon such suit in response to any such Infringement Claim after deducting SYNTA's actual out-of-pocket expenses (including reasonable attorneys' fees and expenses) incurred in pursuing such suit in response to such Infringement Claim, and SYNTA may retain the balance.

8.4. Patent Invalidity Claim. Each of the Parties shall promptly notify the other in the event of any legal or administrative action by any Third Party against a ROCHE Patent Right, SYNTA Patent Right or Joint Patent Right, of which it becomes aware, including any nullity, revocation, reexamination or compulsory license proceeding or, in accordance with Section 8.6, any Paragraph IV Certification. ROCHE shall have the first right, but not the obligation, to defend against any such action or Paragraph IV Certification involving a ROCHE Patent Right, in its own name, and the costs of any such defense shall be at ROCHE's expense. SYNTA shall have the first right, but not the obligation, to defend against any such action or Paragraph IV Certification involving a SYNTA Patent Right or Joint Patent Right, in its own name, and the costs of any such defense shall be at SYNTA's expense. The non-initiating Party, upon request

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of the initiating Party, agrees to join in any such action and to cooperate reasonably with the initiating Party, provided that the initiating Party shall promptly reimburse all out-of-pocket expenses (including reasonable counsel fees and expenses) actually incurred by the non-initiating Party in connection with such cooperation. If the initiating Party does not defend against any such action, then the non-initiating Party shall have the right, but not the obligation, to defend such action and any such defense shall be at the non-initiating Party's expense.

8.5. Patent Marking. ROCHE shall comply with the patent marking statutes in each country in which the Licensed Product is sold by ROCHE, its Affiliates, or its Sublicensees.

8.6. Certification Under Drug Price Competition and Patent Restoration Act . If a Party becomes aware of any certification filed pursuant to 21 U.S.C. §355(b)(2)(A)(iv) or 355(j)(2)(A)(vii)(IV), or any notice under any future analogous provisions of United States Law relating to regulation or approval of pharmaceutical products (or any amendment or successor statute thereto), or any comparable Law under any other jurisdiction, claiming that any SYNTA Patent Right, ROCHE Patent Right or Joint Patent Right, in each case Covering a Licensed Product in the Field, is invalid or otherwise unenforceable, or that infringement will not arise from the manufacture, use, import or sale or offer of sale of a product by a Third Party (a " Paragraph IV Certification"), such Party shall promptly notify the other Party in writing within three (3) Business Days after its receipt thereof.

8.7. Cooperation. SYNTA and ROCHE shall reasonably cooperate in the prosecution, procurement, maintenance and enforcement of all SYNTA Patent Rights, ROCHE Patent Rights and Joint Patent Rights. Such cooperation may include assistance by either Party and its respective Affiliates, employees, agents, consultants and designees in formulating responses to official actions received from the United States Patent and Trademark Office and foreign patent offices, signing documents in connection with the prosecution, maintenance and enforcement of such Patent Rights and taking steps to perfect title in such Patent Rights. No Party may, without obtaining the prior written consent of such other Party, settle or compromise any claim or proceeding relating to the Joint Know-how, Joint Patent Rights or the other Party's solely-owned Patent Rights or Know-how.

ARTICLE IX -CONFIDENTIAL INFORMATION

9.1. Treatment of Confidential Information. During the Term and for [***] ([***]) [***] thereafter, each Party shall maintain Confidential Information of the other Party in confidence, and shall not disclose, divulge, or otherwise communicate such Confidential Information to others or use it for any purpose other than in performance of its obligations or exercise of its rights pursuant to this Agreement, except that each Party may disclose such Confidential Information to its agents, directors, officers, employees, consultants, subcontractors, Affiliates and advisors (collectively, " Agents") under written obligations of confidentiality at least as stringent as the confidentiality provisions set forth in this Article IX and with a need to know such information to perform such obligations or exercise such rights on behalf of the disclosing Party. Each Party shall exercise efforts that are at least as diligent as those generally used by such Party in protecting its own confidential and proprietary information (but no less

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than reasonable efforts), to prevent and restrain the unauthorized disclosure or use of such Confidential Information by any of its Agents. Each Party will be responsible for a breach of this Article IX by its Agents. For clarity, either Party may disclose Confidential Information of the other Party (a) to Regulatory Authorities, to the extent necessary to obtain or maintain INDs or Regulatory Approvals for any Licensed Product as permitted under this Agreement; (b) to outside consultants, scientific advisory boards, managed care organizations, and non-clinical and clinical investigators (in each case, other than ROCHE Entities which are not then Affiliates hereunder) to the extent necessary to Research, Develop or Commercialize any Collaboration Compound or Licensed Product, provided that such Party shall obtain confidentiality obligations from such Third Parties at least as stringent as the confidentiality provisions set forth in this ARTICLE IX; and (c) to the extent necessary to prosecute and enforce ROCHE Patent Rights, SYNTA Patent Rights or Joint Patent Rights; in each of the foregoing cases, solely to the extent applicable to such Party's activities under this Agreement. For clarity, ROCHE may disclose Confidential Information of SYNTA to Chugai, solely to the extent necessary for Chugai to be able to determine whether to Develop or Commercialize any Licensed Compound or Licensed Product on ROCHE's behalf hereunder, provided that ROCHE shall obtain confidentiality obligations from Chugai at least as stringent as the confidentiality provisions set forth in this ARTICLE IX.

9.2. Exceptions. Notwithstanding the foregoing, the receiving Party's obligations under Section 9.1 shall not apply to any Confidential Information that, as shown by competent evidence:

9.2.1. either before or after the date of the disclosure to the receiving Party is lawfully disclosed to the receiving Party by Third Parties without any violation of any obligation to the other Party; or

9.2.2. either before or after the date of the disclosure to the receiving Party, becomes published or generally known to the public through no fault or omission on the part of the receiving Party or its Agents; or

9.2.3. is independently developed by or for the receiving Party without reference to or reliance upon the other Party's Confidential Information as demonstrated by contemporaneous written records of the receiving Party; or

9.2.4. is required to be disclosed by the receiving Party to comply with applicable Laws or legal process, including the rules or regulations of the U.S. Securities and Exchange Commission, or similar regulatory agency in any country other than the United States, or of any stock exchange, including Nasdaq, or to defend or prosecute litigation, provided that the receiving Party promptly provides prior notice to the extent practicable of such disclosure to the other Party and uses reasonable efforts to avoid or minimize the degree of such disclosure.

9.3. Publication Rights. During the Term of this Agreement, the following restrictions shall apply with respect to disclosure by any Party of the other Party's Confidential Information

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relating to Collaboration Compounds, Licensed Compounds or the Licensed Product in any publication or presentation:

9.3.1. Clinical Trial Registries. Both Parties acknowledge that it is their policy for the Clinical Trials with respect to the Licensed Products and results thereof to be registered and published in accordance with their internal guidelines. ROCHE, in accordance with its internal policies and procedures, shall have the right to publish all Clinical Trials with respect to the Licensed Products and results thereof on the clinical trial registries which are maintained by or on behalf of ROCHE. SYNTA shall not publish any Clinical Trials with respect to the Licensed Products or results thereof on its clinical trial registry; provided, however, that ROCHE's clinical trial registry can be accessed via a link from SYNTA's clinical trial registry; and provided, further, that SYNTA shall be permitted, in accordance with applicable Law, to post Clinical Trial information with respect to the Licensed Products on clinicaltrials.gov or any other mandated registry.

9.3.2. Publication. A Party (the "Publishing Party") shall provide the other Party with a copy of any proposed publication or presentation at least [***] ([***]) [***] (or at least [***] ([***]) [***] in the case of abstracts or oral presentations) prior to submission for publication by the Publishing Party or its Affiliates so as to provide such other Party with an opportunity to recommend any changes it reasonably believes are necessary to continue to maintain the Confidential Information disclosed by the other Party to the Publishing Party in accordance with the requirements of this Agreement. The incorporation of such recommended changes shall not be unreasonably refused; and if such other Party notifies (" Notice") the Publishing Party in writing, within [***] ([***]) [***] after receipt of the copy of the proposed publication or presentation (or at least [***] ([***]) [***] in the case of oral presentations), that such publication or presentation in its reasonable judgment (a) contains an invention, solely or jointly conceived or reduced to practice by the other Party, for which the other Party reasonably desires to obtain patent protection or (b) could be expected to have a material adverse effect on the commercial value of any Confidential Information disclosed by the other Party to the Publishing Party, the Publishing Party shall prevent such publication or delay such publication for a mutually agreeable period of time. In the case of inventions, a delay shall be for a period reasonably sufficient to permit the timely preparation and filing of a patent application(s) on such invention, and in no event less than [***] ([***]) [***] from the date of the Notice. In the case of Confidential Information, any of the non-publishing Party's Confidential Information shall be deleted as requested.

9.3.3. Confidential Information in Patents. Nothing in this Agreement shall prevent either Party from filing or prosecuting a patent application or its resulting patents related to a Licensed Product; provided, that such Party is in compliance with Sections 8.2 and 9.1(c).

9.3.4. Return of Confidential Information. Upon the expiration or termination of this Agreement, the receiving Party shall return to the disclosing Party or, at the disclosing Party's request, destroy all Confidential Information received from the disclosing Party and all copies and reproductions thereof. Notwithstanding the foregoing, (a) the receiving Party's legal counsel may retain one copy of the disclosing Party's Confidential Information for archival

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purposes, and (b) the receiving Party may retain one copy of the disclosing Party's Confidential Information solely to the extent necessary to exercise the rights and licenses of the receiving Party expressly surviving expiration or termination of this Agreement. Notwithstanding the return or destruction of the disclosing Party's Confidential Information, the receiving Party shall continue to be bound by its obligations of confidentiality and other obligations under this Article IX.

ARTICLE X -REPRESENTATIONS, WARRANTIES AND COVENANTS

10.1. Mutual Representations. Each Party hereby represents and warrants to the other Party as of the Execution Date as follows:

10.1.1. It is duly organized and validly existing under the Laws of its jurisdiction of incorporation and has the corporate power and authority to execute and deliver this Agreement and to perform its obligations hereunder.

10.1.2. The execution, delivery and performance of this Agreement by such Party has been duly and validly authorized and approved by proper corporate action on the part of such Party. It has taken all other action required by applicable Law, its certificate of incorporation or by-laws or any agreement to which it is a party or by which it or its assets are bound, to authorize such execution, delivery and performance. Assuming due authorization, execution and delivery on the part of the other Party, this Agreement constitutes a legal, valid and binding obligation of such Party.

10.1.3. The execution and delivery of this Agreement, and the performance of this as contemplated hereunder, by such Party will not violate any applicable Law.

10.1.4. Neither the execution and delivery of this Agreement nor the performance hereof by such Party requires such Party to obtain any permit, authorization or consent from any governmental authority or from any other Person, and such execution, delivery and performance by such Party will not result in the breach of or give rise to any conflict, termination of, rescission, renegotiation or acceleration under or trigger any other rights under any agreement or contract to which such Party may be a party existing as of the Execution Date, except any that would not, individually or in the aggregate, reasonably be expected to adversely affect the other Party's rights under this Agreement or the ability of such Party to perform its obligations under this Agreement.

10.2. SYNTA's Representations SYNTA hereby represents and warrants to ROCHE as of the Execution Date as follows:

10.2.1. To SYNTA's knowledge, SYNTA has not, up through and including the Execution Date, intentionally withheld any material information requested by ROCHE in connection with ROCHE's due diligence relating to the subject matter of this Agreement and the underlying transaction, and, when provided, the information related to Collaboration Compounds that SYNTA provided to ROCHE prior to the Execution Date was up-to-date, timely and accurate in all material respects.

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10.2.2. SYNTA has the right to grant to ROCHE the rights and licenses described hereunder.

10.2.3. To SYNTA's knowledge,Exhibit A is a complete and correct list of all SYNTA Patent Rights in the Territory that Cover the Collaboration Compounds Controlled by SYNTA as of the Execution Date.

10.2.4. To SYNTA's knowledge, no Third Party is infringing any of the SYNTA Patent Rights identified on Exhibit A.

10.2.5. To SYNTA's knowledge, the making, using or selling of [***] as contemplated under this Agreement will not infringe any Third Party patent rights that exist as of the Execution Date.

10.3. ROCHE's Representations. ROCHE hereby represents and warrants to SYNTA as of the Execution Date as follows:

10.3.1. ROCHE has the right to grant to SYNTA the rights and licenses described hereunder.

10.3.2. To ROCHE's knowledge, there are no ROCHE Patent Rights in the Territory that Cover the Collaboration Compounds Controlled by ROCHE as of the Execution Date.

10.4. Covenants of the Parties.

10.4.1. Each of ROCHE and SYNTA shall require by written agreement that all of its personnel, employees, and agents involved in the Research, Development, Manufacture or Commercialization of Collaboration Compounds or Licensed Products have entered into confidentiality and invention assignment agreements that are consistent with the terms of this Agreement and shall be obligated to assign any rights they may have in any inventions made during such work to ROCHE or SYNTA, respectively.

10.4.2. Each Party and its Affiliates shall conduct, and shall use Commercially Reasonable Efforts to cause its Sublicensees, contractors, and consultants to conduct, all of its activities contemplated under this Agreement in accordance with all applicable Laws of the country in which such activities are conducted.

10.5. No Warranty. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY HERETO MAKES ANY REPRESENTATION AND EXTENDS NO WARRANTY OF ANY KIND, EITHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE SUBJECT MATTER OF THIS AGREEMENT (INCLUDING ANY COLLABORATION COMPOUND OR LICENSED PRODUCT), INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE.

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ARTICLE XI -INDEMNIFICATION

11.1. Indemnification by ROCHE. ROCHE shall indemnify, hold harmless and defend SYNTA, its Affiliates and their respective directors, officers, employees and agents from and against any and all losses, expenses, cost of defense (including reasonable attorneys' fees, witness fees, damages, judgments, fines and amounts paid in settlement) and any amounts SYNTA becomes legally obligated to pay because of any claim or claims against it, to the extent that such claim or claims arise out of (a) the Research, Development, Manufacture, Commercialization, use or importation of Licensed Compounds or Licensed Products by or on behalf of ROCHE, its Affiliates or Sublicensees (including product liability claims), (b) the breach of any of ROCHE's representations or warranties hereunder, or (c) any infringement of any Third Party Patent Rights or misappropriation of any Third Party Know-How in connection with the Development, Manufacture, Commercialization, use or import of any Licensed Compounds or Licensed Products, in all cases except to the extent such losses, expenses, costs and amounts are due to the gross negligence or willful misconduct of SYNTA or breach of any of SYNTA's representations and warranties hereunder.

11.2. Indemnification by SYNTA. SYNTA shall indemnify, hold harmless and defend ROCHE, its Affiliates and their respective directors, officers, employees and agents from and against any and all losses, expenses, cost of defense (including reasonable attorneys' fees, witness fees, damages, judgments, fines and amounts paid in settlement) and any amounts ROCHE becomes legally obligated to pay because of any claim or claims against it, to the extent that such claim or claims arise out of the breach of any of SYNTA's representations or warranties hereunder, in all cases except to the extent such losses, expenses, costs and amounts are due to the gross negligence or willful misconduct of ROCHE or breach of any of ROCHE's representations and warranties hereunder.

11.3. Procedure. In the event of a claim by a Third Party against any Person entitled to indemnification under this Agreement (in such capacity, the "Indemnified Party"), the Indemnified Party shall promptly notify the other Party (in such capacity, the " Indemnifying Party") in writing of the claim (it being understood that the failure by the Indemnified Party to give prompt notice of a Third Party claim as provided in this Section 11.3 shall not relieve the Indemnifying Party of its indemnification obligation under this Agreement except and only to the extent that such Indemnifying Party is actually prejudiced as a result of such failure to give prompt notice). Within [***] ([***]) days after delivery of such notification, the Indemnifying Party may, upon written notice thereof to the Indemnified Party, undertake and solely manage and control, at its sole expense and with counsel reasonably satisfactory to the Indemnified Party, the defense of the claim. If the Indemnifying Party does not undertake such defense, the Indemnified Party shall control such defense. The Party not controlling such defense shall cooperate with the other Party and may, at its option and expense, participate in such defense, provided that if the Indemnifying Party assumes control of such defense and the Indemnified Party in good faith concludes, based on advice from counsel, that the Indemnifying Party and the Indemnified Party have conflicting interests with respect to such action, suit, proceeding or claim, the Indemnifying Party shall be responsible for the reasonable fees and expenses of counsel to the Indemnified Party solely in connection therewith. The Party controlling such defense shall

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keep the other Party advised of the status of such action, suit, proceeding or claim and the defense thereof and shall consider recommendations made by the other Party with respect thereto. The Indemnifying Party shall not be liable for any litigation costs or expenses incurred by the Indemnified Party without the Indemnifying Party's written consent. The Indemnified Party shall not settle any such action, suit, proceeding or claim without the prior written consent of the Indemnifying Party, which shall not be unreasonably withheld, delayed or conditioned. Without the prior written consent of the Indemnified Party, the Indemnifying Party shall not settle any such action, suit, proceeding or claim, or consent to any judgment in respect thereof, that does not include a complete and unconditional release of the Indemnified Party from all liability with respect thereto, that imposes any liability or obligation on the Indemnified Party or that acknowledges fault by the Indemnified Party.

11.4. Insurance. Each Party shall maintain appropriate product liability insurance (or self-insurance) with respect to its Research, Development, Manufacture and Commercialization activities hereunder in such amount as such Party customarily maintains with respect to its other products for similar patient populations and commercial markets. Each Party shall maintain such insurance for so long as it continues to conduct such activities hereunder, and for so long as such Party customarily maintains insurance with respect to sales of its other products for similar patient populations and commercial markets.

11.5. No Consequential Damages. IN NO EVENT SHALL EITHER SYNTA OR ROCHE BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, MULTIPLE OR CONSEQUENTIAL DAMAGES ARISING OUT OF THIS AGREEMENT BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY. NOTHING IN THIS SECTION 11.5 IS INTENDED TO LIMIT OR RESTRICT (A) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY UNDER THIS ARTICLE XI, (B) REMEDIES AVAILABLE TO EITHER PARTY WITH RESPECT TO A BREACH OF ARTICLE IX OR (C) REMEDIES AVAILABLE TO EITHER PARTY WITH RESPECT TO A BREACH OI SECTION 6.6.

ARTICLE XII -TERM AND TERMINATION

12.1. Term. The term of this Agreement shall commence on the Effective Date and, unless earlier terminated as provided in this Article XII, shall continue in full force and effect until the expiration of the Royalty Term for all Licensed Products (the " Term").

12.2. Termination for No Activity. SYNTA may terminate this Agreement in its entirety, effective immediately upon giving of written notice thereof to ROCHE, in the event that, during any [***] ([***]) [***] period after the Research Term and prior to First Commercial Sale of any Licensed Product anywhere in the Territory, no Development has been conducted by or on behalf of ROCHE with respect to any Licensed Compound, unless such absence of Development occurs as a result of an action by a Regulatory Authority prohibiting clinical development of all Licensed Products, in which case the [***] ([***]) [***] time period will be reset to begin as of the date of such action.

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12.3. Termination for Convenience. At any time after [***] during the Term, ROCHE shall have the right to terminate this Agreement in its entirety for any reason upon [***] ([***]) [***] prior written notice to SYNTA, such notice to be provided no earlier than [***]. At any time during the Term, ROCHE shall have the right to terminate this Agreement on a Licensed Compound-by-Licensed Compound basis in one or more Regions (each, a "Terminated Region"), for any reason upon [***] ([***]) [***] prior written notice to SYNTA; provided, that ROCHE cannot terminate this Agreement with respect to all Licensed Compounds except as provided in the first sentence of this Section 12.3.

12.4. Termination for Cause. In the event of a material breach of this Agreement by a Party, the other Party may give the Party in default notice of such material breach. If such material breach is not cured within [***] ([***]) [***] after receipt of such notice (or within [***] ([***]) [***] in the case of a payment breach), the notifying Party shall be entitled (without prejudice to any of its other rights conferred on it by this Agreement or under applicable Law) to terminate this Agreement by giving written notice to the defaulting Party, with such termination to take effect immediately.

12.5. Termination if ROCHE Challenges SYNTA Patent Rights. If ROCHE or any of ROCHE's Affiliates or Sublicensees challenges the validity, enforceability, patentability or scope of an claim included in any SYNTA Patent Rights or supports, directly or indirectly, any such challenge (any of the foregoing, a "Patent Challenge"), SYNTA shall have the right to terminate this Agreement upon [***] ([***]) days' written notice to ROCHE with respect to the SYNTA Patent Right so challenged by ROCHE or any of its Affiliates or Sublicensees; provided, however, that if such Patent Challenge is terminated during such [***] ([***]) day period, then SYNTA shall not have the right to terminate this Agreement in respect of such Patent Challenge; provided, however, that (a) at SYNTA's request, ROCHE shall issue a joint press release with SYNTA promptly after the termination of such Patent Challenge, which press release shall publicize that the relationship between ROCHE and SYNTA with respect to this Agreement is strong, and (b) if ROCHE or any of its Affiliates or Sublicensees was the first Person to initiate any such Patent Challenge, then ROCHE shall reimburse SYNTA for all costs and expenses, including attorneys' fees, incurred by SYNTA in defending such Patent Challenge and any similar Patent Challenge made by any Third Party within [***] ([***]) [***] after the initial Patent Challenge, and shall pay all such reimbursement amounts within [***] ([***]) days after receipt of an invoice from SYNTA therefor.

12.6. Consequences of Termination by ROCHE for Convenience in its Entirety; Termination by SYNTA for ROCHE Breach or Patent Challenge. If this Agreement is terminated by SYNTA in its entirety pursuant to Section 12.2 (Termination for No Activity), by ROCHE in its entirety pursuant to Section 12.3 (Termination for Convenience), or by SYNTA pursuant to Section 12.4 (Termination for Cause) or 12.5 (Termination if ROCHE Challenges SYNTA Patent Rights), then:

12.6.1. Termination of Licenses. The licenses granted by SYNTA to ROCHE pursuant to Sections 6.1 (Research Licenses) and 6.2 (Development and Commercialization License to ROCHE) shall terminate;

12.6.2. Regulatory Matters. ROCHE shall transfer to SYNTA ownership of all regulatory filings and Regulatory Approvals in ROCHE's or its Affiliates' possession or control relating to all Collaboration Compounds that are not Licensed Compounds (other than ROCHE solely Controlled Collaboration Compounds), Licensed Compounds and Licensed Products;

12.6.3. Preclinical and Clinical Matters. ROCHE shall assign to SYNTA its entire right, title, and interest in and to all preclinical and clinical data, including pharmacology and biology data, in ROCHE's or its Affiliates' possession or control relating to and to the extent necessary for SYNTA to continue the Research, Development or Commercialization of Collaboration Compounds that are not Licensed Compounds (other than ROCHE solely Controlled Collaboration Compounds), Licensed Compounds and Licensed Products;

12.6.4. Manufacturing Matters. At SYNTA's option, ROCHE shall:

(a) To the extent assignable and related to Licensed Compounds or Licensed Products, assign to SYNTA each manufacturing agreement then in effect with respect to the Manufacture of such Licensed Compounds and Licensed Products;

(b) transfer Manufacturing documents and materials which are used (at the time of the termination) by or on behalf of ROCHE, its Affiliates or Sublicensees in the Manufacture of such Licensed Compounds and Licensed Products; and

(c) upon SYNTA's request, sell to SYNTA (or its designee) ROCHE's then-existing inventory of such Licensed Compounds and Licensed Products, at ROCHE's FBMC;

12.6.5. Manufacturing Obligations after Termination. To the extent ROCHE (or an Affiliate of ROCHE) is Manufacturing (on its own or through any Third Party contract manufacturer) any Licensed Product, ROCHE (or its Affiliate) shall, at SYNTA's request, continue, for a period up to [***] ([***]) [***], to Manufacture (or have Manufactured) such Licensed Product and supply such Licensed Product to SYNTA. ROCHE shall be obligated to supply quantities of such Licensed Product sufficient to satisfy SYNTA's requirements under a manufacturing transfer and transition plan to be negotiated by the Parties in good faith so that SYNTA can assume all Development and Commercialization activities with regard to such Licensed Product. ROCHE will supply such quantities of Licensed Product at ROCHE's FBMC (as such term is consistently applied by ROCHE at the time of supply) plus [***] percent ([***]%). In addition, for a period of time to be agreed upon in good faith by the Parties up to [***] ([***]) [***], ROCHE shall assist SYNTA as reasonably requested in (a) causing the assignment to SYNTA of any and all applicable Third Party Manufacturing and supply agreements for such Licensed Product, to the extent possible, or (b) transferring the Manufacturing process for such Licensed Product to SYNTA or a Third Party contract

manufacturer engaged by SYNTA. Such assistance shall include assisting SYNTA in developing and executing a reasonable transfer and providing reasonable technical and regulatory assistance and documentation relating to the manufacture, testing and supply of such Licensed Product as necessary for SYNTA to be qualified or to qualify a Third Party for the

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Manufacturing of such Licensed Product. Notwithstanding the above, if at the time of termination of this Agreement, the transfer of Development responsibility per Section 2.7.1 for such Licensed Product has not yet occurred, then the transfer activities regarding Manufacture and testing of such Licensed Product shall be limited to the transfer of documents and shipment of such Licensed Product, including reference materials and stability samples, at no cost to SYNTA.

12.6.6. License Grants to SYNTA. ROCHE hereby grants to SYNTA an exclusive, royalty-bearing (as set forth in Section 12.6.8 below), irrevocable, perpetual license, with the right to grant sublicenses, under the ROCHE Patent Rights, ROCHE Know-how, and ROCHE's interest in any Joint Patent Rights or Joint Know-how, in each case Covering Collaboration Compounds, Licensed Compounds or Licensed Products, to Research, Develop, Manufacture, have Manufactured, use, Commercialize and import such Collaboration Compounds and Licensed Compounds (or products containing any such Collaboration Compound or Licensed Compound as an active ingredient) or Licensed Products; provided, that SYNTA shall not exercise such license unless and until this Agreement is terminated by ROCHE pursuant to Section 12.3 (Termination for Convenience), or by SYNTA pursuant to Section 12.2 (Termination for No Activity), 12.4 (Termination for Cause) or 12.5 (Termination if ROCHE Challenges SYNTA Patent Rights);

12.6.7. Prosecution and Enforcement. The provisions of Sections 8.2 (Prosecution and Maintenance of Patent Rights), 8.3 (Third Party Infringement), 8.4 (Patent Invalidity Claim), 8.6 (Certification Under Drug Price Competition and Patent Restoration Act) and 8.7 (Cooperation) shall remain in effect with respect to the ROCHE Patent Rights, ROCHE Know-how, Joint Patent Rights and Joint Know-how licensed to SYNTA under Section 12.6.6 above, provided, that SYNTA shall have the first right, at its expense, to prosecute, maintain, enforce or defend, or initiate litigation with respect to, the ROCHE Patent Rights or ROCHE Know-how under such provisions, with ROCHE having the step-in rights of the non-initiating Party as set forth therein;

12.6.8. Royalties Payable to ROCHE. In the event that this Agreement is terminated after the expiration of the Research Term, SYNTA shall pay ROCHE, on a country-by-country and Licensed Product-by-Licensed Product basis, royalties on the net sales (with the definition of Net Sales set forth in Section 1.51 applied to such Licensed Product) by SYNTA, its Affiliates and Sublicensees of Licensed Products, at the rate of [***] percent ([***]%) with respect to Licensed Products containing a Licensed Compound that is Covered by SYNTA Patent Rights or Joint Patent Rights; provided, however, that if such Licensed Product is instead or also Covered by ROCHE Patent Rights, then such royalty rate shall be [***] percent ([***]%). Any royalties payable by SYNTA pursuant to this Section 12.6.8 shall be payable commencing on the first commercial sale (with the definition of First Commercial Sale set forth in Section 1.26 applied to such Licensed Product) of such Licensed Product by SYNTA, its Affiliates or Sublicensees, and shall expire on a country-by-country basis and Licensed Product-by-Licensed Product basis on the expiration of the last Valid Claim of the ROCHE Patent Rights, SYNTA Patent Rights or Joint Patent Rights, as applicable, Covering the Licensed Compound contained

in such Licensed Product in such country, and subject to royalty deductions and adjustments corresponding to those set forth under Section 7.6; and

12.6.9. Assignment of Trademark. ROCHE shall assign to SYNTA ROCHE's and its Affiliates' entire right, title and interest in, to and under any trademark used by ROCHE, its Affiliates or Sublicensees exclusively in connection with the Commercialization of a Licensed Product, it being understood that such assignment shall not include the ROCHE name or trademark for the ROCHE company itself.

12.7. Consequences of Termination by ROCHE for SYNTA Breach. If ROCHE terminates this Agreement pursuant to Section 12.4 (Termination for Cause), then, at ROCHE's election, (a) the Research licenses granted to ROCHE pursuant to Section 6.1 (Research Licenses) shall continue solely if the termination occurs during the Research Term and solely to enable ROCHE to perform the Research activities with respect to any Collaboration Compound which were not completed by SYNTA under the Research Plan, and (b) the Development and Commercialization licenses granted to ROCHE pursuant to Section 6.2 (Development and Commercialization License to ROCHE) shall continue solely with respect to Licensed Compounds and Licensed Products; in each case subject to ROCHE's continued compliance with ROCHE's payment and other obligations under Article VII with respect to such Collaboration Compounds, Licensed Compounds or Licensed Products.

12.8. Effect of Termination and Expiration; Accrued Rights and Obligations. Upon termination or expiration of this Agreement for any reason, all rights and obligations of the Parties, including the licenses granted hereunder, shall end, unless otherwise set forth in this Article XII. Termination of this Agreement for any reason shall not release either Party from any liability that, at the time of such termination, has already accrued or that is attributable to a period prior to such termination (including payments for Research and Development work performed, and other payment obligations under Article VII accrued, prior to the effective date of termination) nor preclude either Party from pursuing any right or remedy it may have hereunder or at Law or in equity with respect to any breach of this Agreement. Notwithstanding the preceding sentence, (a) if this Agreement is terminated by ROCHE pursuant to Section 12.4 (Termination for Cause), then ROCHE need not make any payments pursuant to Section 7.4 (Development Event Payments) that first accrue during the applicable cure period set forth in Section 12.4 with respect to the breach for which ROCHE so terminated this Agreement, and (b) if this Agreement is terminated in its entirety by ROCHE pursuant to Section 12.3 (Termination for Convenience), then ROCHE need not make any payments pursuant to rows (a) through (d) in the table in Section 7.4 (Development Event Payments) that first accrue during the three (3) month notice period set forth in Section 12.3 with respect to such termination. In addition, if this Agreement is terminated, by ROCHE pursuant to Section 12.3 (Termination for Convenience), or by SYNTA pursuant to Section 12.2 (Termination for No Activity), 12.4 (Termination for Cause) or 12.5 (Termination if ROCHE Challenges SYNTA Patent Rights), then ROCHE shall continue to be responsible for all non-cancellable costs committed to by SYNTA which would otherwise have been reimbursed by ROCHE hereunder and all costs committed to by SYNTA for Development activities which cannot be cancelled for ethical reasons; provided, that SYNTA shall use Commercially Reasonable Efforts to mitigate such costs. It is understood and agreed

that monetary damages may not be a sufficient remedy for any breach of this Agreement and that the non-breaching Party may be entitled to seek injunctive relief as a remedy for any such breach.

12.9. Survival. The rights and obligations set forth in this Agreement shall extend beyond the termination or expiration of this Agreement only to the extent expressly provided for in this Agreement or to the extent required to give effect to a termination of this Agreement or the consequences of a termination of this Agreement as expressly provided for in this Agreement. Without limiting the generality of the foregoing, it is agreed that the provisions of Sections 2.5.2, 6.5, 6.7, 7.7.2, 7.7.6, 7.7.7, 7.9, 8.1, 9.1, 9.2, 9.3.4, 10.5, 11, 12.6, 12.7, 12.8, 12.9, 12.10, 13 and 14, except for Section 14.3, and, solely with respect to Joint Intellectual Property, Sections 8.2.3, 8.2.5, 8.2.6, 8.3.1, 8.3.4, 8.3.5, 8.3.6, 8.4, 8.6 and 8.7 shall survive expiration or termination of this Agreement for any reason.

12.10. Consequences Regarding Termination of Licensed Compounds in One or More Regions for Convenience . If ROCHE terminates this Agreement pursuant to Section 12.3 (Termination for Convenience) with respect to a Licensed Compound in one or more Regions, then:

12.10.1. Termination of Licenses. The licenses granted by SYNTA to ROCHE pursuant to Section 6.2 (Development and Commercialization License to ROCHE) shall automatically terminate, in all Terminated Regions, with respect to such Licensed Compound and all Licensed Products containing such Licensed Compound;

12.10.2. Regulatory Matters. ROCHE shall (a) transfer to SYNTA ownership of all regulatory filings filed in, and Regulatory Approvals received with respect to, any Terminated Region (or any country therein), which filings or Regulatory Approvals are in ROCHE's or its Affiliates' possession or control and relate to such Licensed Compound and Licensed Products containing such Licensed Compound; and (b) grant SYNTA or its designees a Right of Reference or Use to any and all regulatory filings filed in, and Regulatory Approvals received with respect to, any Region (or country) other than a Terminated Region (or any country therein), which filings or Regulatory Approvals are in ROCHE's or its Affiliates' possession or control and relate to such Licensed Compound and Licensed Products containing such Licensed Compound, and ROCHE shall sign, and cause its Affiliates to sign, any instruments reasonably requested by SYNTA in order to effect such grant. For the sake of clarity, SYNTA may publish on its clinical trial registry any Clinical Trials with respect to Licensed Products containing such Licensed Compound or results thereof;

12.10.3. Preclinical and Clinical Matters. (a) Once such Licensed Compound is terminated in all Regions, ROCHE shall assign to SYNTA its entire right, title, and interest in and to all preclinical and clinical data, including pharmacology and biology data, in ROCHE's or its Affiliates' possession or control, relating to, and to the extent necessary for SYNTA to continue, the Development or Commercialization of such Licensed Compound and Licensed Products containing such Licensed Compound; (b) If such Licensed Compound is terminated in some, but not all, Regions, then ROCHE shall provide to SYNTA a copy of all preclinical and clinical data, including pharmacology and biology data, in ROCHE's or its

Affiliates' possession or control, relating to, and to the extent necessary for SYNTA to continue, the Development or Commercialization of such Licensed Compound and Licensed Products containing such Licensed Compound;

12.10.4. Worldwide Manufacturing Matters. Once such Licensed Compound is terminated in all Regions, then, at SYNTA's option, ROCHE shall (a) to the extent assignable at no cost to ROCHE, assign to SYNTA each manufacturing agreement then in effect with respect to the Manufacture of such Licensed Compound and Licensed Products containing such Licensed Compound; (b) transfer to SYNTA Manufacturing documents and materials which are used (at the time of the termination) by or on behalf of ROCHE, its Affiliates or Sublicensees in the Manufacture of such Licensed Compound and Licensed Products containing such Licensed Compound; and (c) upon SYNTA's request, sell to SYNTA (or its designee) ROCHE's then-existing inventory of such Licensed Compound and Licensed Products containing such Licensed Compound, at FBMC;

12.10.5. Regional Manufacturing Matters. If such Licensed Compound is terminated in some, but not all, Regions, then, at SYNTA's option, ROCHE shall sell to SYNTA (or its designee) a proportionate amount of ROCHE's then-existing inventory of such Licensed Compound and Licensed Products containing such Licensed Compound, at FBMC, which proportion reflects (a) if such Licensed Products had been Commercialized in each Region prior to such termination, the proportion of units of such Licensed Products sold in the Terminated Regions during the [***] ([***]) [***] period prior to such termination, compared to the number of units of such Licensed Products sold worldwide during such [***] ([***]) [***] period, or (b) if such Licensed Products had not been Commercialized in each Region prior to such termination, an estimate, as mutually agreed by the Parties in good faith, of the number of units of such Licensed Products anticipated to be sold in the Terminated Regions during the [***] ([***]) [***] period immediately following such termination, compared to the number of units of such Licensed Products anticipated to be sold worldwide during such [***] ([***]) [***] period; provided, however, that, if the then-existing inventory is not sufficient to provide both SYNTA with such amounts and ROCHE with the amounts of such Licensed Compound and Licensed Products containing such Licensed Compound it reasonably requires to Commercialize such Licensed Products in the next [***] ([***]) [***] period, then ROCHE may retain as much of such then-existing inventory as it reasonably requires to Commercialize such Licensed Products in the next [***] ([***]) [***] period;

12.10.6. ROCHE Manufacturing. To the extent ROCHE (or an Affiliate of ROCHE) is Manufacturing (on its own or through any Third Party contract manufacturer) any such Licensed Product that has achieved First Commercial Sale in any country (a " Terminated Commercial Product"), ROCHE (or its Affiliate) shall, at SYNTA's request, continue, for a period up to [***] ([***]) [***], to Manufacture (or have Manufactured) such Terminated Commercial Product and supply such Terminated Commercial Product to SYNTA, for SYNTA to Develop such Terminated Commercial Product for, and Commercialize such Terminated Commercial Product in, the Terminated Regions. ROCHE shall be obligated to supply, with the proviso that ROCHE need not increase its manufacturing capacity, quantities of such Terminated Commercial Product sufficient to satisfy SYNTA's requirements under a manufacturing transfer

and transition plan to be negotiated by the Parties in good faith so that SYNTA can assume, with regard to such Terminated Commercial Product, all Development activities for, and Commercialization activities in, the Terminated Regions. ROCHE will supply such quantities of Terminated Commercial Product at ROCHE's FBMC (as such term is consistently applied by ROCHE at the time of supply) plus [***] percent ([***]%). In addition, for a period of time to be agreed upon in good faith by the Parties up to [***] ([***]) [***], ROCHE shall assist SYNTA as reasonably requested (a) in causing the assignment to SYNTA of any and all applicable Third Party Manufacturing and supply agreements for such Terminated Commercial Product, to the extent possible without jeopardizing ROCHE's manufacturing needs, and (b) in transferring the Manufacturing process for such Terminated Commercial Product to SYNTA or a Third Party contract manufacturer engaged by SYNTA. Such assistance shall include assisting SYNTA in developing and executing a reasonable transfer and providing reasonable technical and regulatory assistance and documentation relating to the manufacture, testing and supply of such Licensed Product as necessary for SYNTA to be qualified or to qualify a Third Party for the Manufacturing of such Licensed Product. Prior to such Licensed Product achieving First Commercial Sale in any country, the transfer activities regarding Manufacture and testing of such Licensed Product shall be limited to the transfer of documents and shipment of such Licensed Product, including reference materials and stability samples, at no cost to SYNTA;

12.10.7. License Grants to SYNTA. ROCHE hereby grants SYNTA (a) an exclusive, royalty-bearing (as set forth in Section 12.10.9 below), irrevocable, perpetual license, with the right to grant sublicenses, under the ROCHE Patent Rights, ROCHE Know-how, and ROCHE's interest in any Joint Patent Rights or Joint Know-how, in each case Covering such Licensed Compound, to Develop, Manufacture, have Manufactured, use, Commercialize and import such Licensed Compounds or Licensed Products containing such Licensed Compound, in each case in the Terminated Regions, and (b) to the extent that such Licensed Compound is not terminated in all Regions, a non-exclusive, royalty-bearing (as set forth in Section 12.10.9 below), irrevocable, perpetual license, with the right to grant sublicenses, under the ROCHE Patent Rights, ROCHE Know-how, and ROCHE's interest in any Joint Patent Rights or Joint Know-how, in each case Covering such Licensed Compound, to Develop, Manufacture and have Manufactured, and to use and import for purposes of Development and Manufacturing, such Licensed Compounds or Licensed Products containing such Licensed Compound, in each case in each Region not yet terminated;

12.10.8. Prosecution and Enforcement. The provisions of Sections 8.2 (Prosecution and Maintenance of Patent Rights), 8.3 (Third Party Infringement), 8.4 (Patent Invalidity Claim), 8.6 (Certification Under Drug Price Competition and Patent Restoration Act) and 8.7 (Cooperation) shall remain in effect with respect to the ROCHE Patent Rights, ROCHE Know-how, Joint Patent Rights and Joint Know-how licensed to SYNTA under Section 12.10.7; provided, that SYNTA shall have the first right, at its expense, to prosecute, maintain, enforce or defend, or initiate litigation with respect to, the ROCHE Patent Rights or ROCHE Know-how under such provisions, with ROCHE having the step-in rights of the non-initiating Party as set forth therein;

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

12.10.9. Royalties Payable to ROCHE. In the event that ROCHE terminates this Agreement pursuant to Section 12.3 (Termination for Convenience) with respect to a Licensed Compound after the expiration of the Research Term, SYNTA shall pay ROCHE, on a country-by-country and Licensed Product-by-Licensed Product basis, royalties on the net sales (with the definition of Net Sales set forth in Section 1.50 applied to such Licensed Product) by SYNTA, its Affiliates and Sublicensees of Licensed Products containing such Licensed Compound in the Terminated Regions, at the rate of [***] percent ([***]%) with respect to Licensed Products containing a Licensed Compound that is Covered by SYNTA Patent Rights or Joint Patent Rights; provided, however, that if such Licensed Product is instead or also Covered by ROCHE Patent Rights, then such royalty rate shall be [***] percent ([***]%). Any royalties payable by SYNTA pursuant to this Section 12.10.9 shall be payable commencing on the first commercial sale (with the definition of First Commercial Sale set forth in Section 1.26 applied to such Licensed Product) of such Licensed Product by SYNTA, its Affiliates or Sublicensees in the relevant country in the Terminated Region, and shall expire on a country-by-country basis and Licensed Product-by-Licensed Product basis on the expiration of the last Valid Claim of the ROCHE Patent Rights, SYNTA Patent Rights or Joint Patent Rights, as applicable, Covering such Licensed Compound in such country, and subject to royalty deductions and adjustments corresponding to those set forth under Section 7.6; and

12.10.10. Assignment of Trademark. ROCHE shall assign to SYNTA ROCHE's and its Affiliates' entire right, title and interest in, to and under any trademark used by ROCHE, its Affiliates or Sublicensees in connection with the Commercialization of such Licensed Compound (or Licensed Product containing such Licensed Compound) in the Terminated Regions, it being understood that such assignment shall not include the ROCHE name or trademark for the ROCHE company itself.

ARTICLE XIII -DISPUTE RESOLUTION

13.1. Referral of Unresolved Matters to Executive Officers. Subject to Section 3.2.4, and except for matters that are subject to a Party's final decision making authority pursuant to Section 8.2.6(b) (Patent Term Extensions) or Section 2 of Schedule 5.3 (Co-Promotion Terms), if the JSC is unable to resolve any matter considered by it, including matters referred to it by the JRDC, within [***] ([***]) [***] after the matter is first considered by it, the matter shall be referred to the Executive Officers to be resolved by negotiation in good faith as soon as is practicable but in no event later than [***] ([***]) [***] after referral. Such resolution, if any, of a referred issue by the Executive Officers shall be final and binding on the Parties.

13.2. Alternative Dispute Resolution. Subject to Sections 3.2.4 (Decision-Making) and 13.1, if a dispute referred to the Executive Officers has not been resolved by the Executive Officers within [***] ([***]) days after referral, or if the Executive Officers fail to meet within such [***] ([***]) days, a Party may seek resolution of the dispute by initiating arbitration in accordance with the following provisions.

13.2.1. Location. All disputes arising out of this Agreement and referred to arbitration pursuant to this Section 13.2 shall be finally resolved by arbitration conducted by a

single arbitrator (unless the Parties mutually agree to three (3) arbitrators) in New York, New York in the English language in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"). Such arbitrator shall be appointed by the AAA pursuant to its procedures. The AAA shall be the administrator of the arbitration proceedings.

13.2.2. Ruling. The arbitrator(s) may proceed to an award notwithstanding the failure of the other Party to participate in the proceedings. The Parties shall use good faith efforts to complete arbitration under this Section 13.2 within ninety (90) days following the initiation of such arbitration. The arbitrator(s) shall establish reasonable additional procedures to facilitate and complete such arbitration within such ninety (90) day period. The arbitrator(s) shall be authorized to grant interim relief, including to prevent the destruction of goods or documents involved in the dispute, protect trade secrets and provide for security for a prospective monetary award. The arbitrator(s) shall issue a written decision in order to explain the basis of the ruling, unless otherwise agreed by the Parties. The arbitrator(s) shall not have the authority to award special, incidental, consequential, exemplary, punitive, multiple or other indirect damages or loss of profits, loss of data or loss of use damages, except as permitted under Section 11.5.

13.2.3. Fees. The arbitrator(s) shall be paid reasonable fees plus expenses. These fees and expenses, along with the reasonable legal fees and expenses of the prevailing Party (including all expert witness fees and expenses), the fees and expenses of a court reporter, and any expenses for a hearing room, shall be paid as follows:

(a) If the arbitrator(s) rule in favor of one Party on all disputed issues in the arbitration, the losing Party shall pay all such fees and expenses.

(b) If the arbitrator(s) rule in favor of one Party on some issues and the other Party on other issues, the arbitrator(s) shall issue with the ruling a written determination as to how such fees and expenses shall be allocated between the Parties. The arbitrator(s) shall allocate fees and expenses in a way that bears a reasonable relationship to the outcome of the arbitration, with the Party prevailing on more issues, or on issues of greater value or gravity, recovering a relatively larger share of its legal fees and expenses.

13.2.4. Decision. Any decision or award of the arbitrator(s) shall be final, conclusive, and binding on the Parties, and judgment may be entered on any award in any court of competent jurisdiction, subject only to revocation on grounds of fraud or clear bias on the part of the arbitrators. To the extent lawful, the Parties otherwise exclude any right of application or appeal to the courts in connection with any matter arising in the arbitration or in connection with any award or decision made by the arbitrators.

13.2.5. No Limitation. Notwithstanding the foregoing, (a) nothing in this Article XIII shall be construed as limiting in any way the right of a Party to seek injunctive or other equitable relief from a court of competent jurisdiction with respect to any actual or threatened breach of this Agreement, and (b) each Party shall have the right to institute judicial proceedings against the other Party (or anyone acting by or through such other Party), in order to

enforce such Party's rights under this Agreement or under any decision or award of the arbitrator(s), through reformation of contract, specific performance, injunction or similar equitable relief.

13.2.6. No Arbitration of Patent Matters. Unless otherwise agreed by the Parties, a dispute between the Parties relating to the validity, infringement or enforceability of patents shall not be subject to arbitration and shall by submitted to a court of competent jurisdiction.

ARTICLE XIV -MISCELLANEOUS

14.1. Governing Law. This Agreement and any dispute arising from the performance or breach of this Agreement shall be governed by, construed and enforced in accordance with the laws of the State of Delaware, other than any principle of conflict or choice of laws that would cause the application of the laws of any other jurisdiction; provided that with respect to matters involving enforcement of intellectual property rights, the Laws of the applicable country shall apply. The provisions of the United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Agreement or any subject matter hereof.

14.2. Waiver. Waiver by a Party of a breach hereunder by the other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision. No delay or omission by a Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder shall operate as a waiver of any right, power or privilege by such Party. No waiver shall be effective unless made in writing with specific reference to the relevant provision(s) of this Agreement and signed by a duly authorized representative of the Party granting the waiver.

14.3. Change of Control. If SYNTA undergoes a Change of Control to or with a Third Party, then, at ROCHE's election, ROCHE may terminate either: (i) the rights of such Third Party, as assignee of SYNTA's rights under this Agreement, to participate on the JRDC or JSC, or (ii) the rights of such Third Party, as assignee of SYNTA's rights under this Agreement, to Co-promote Licensed Products under this Agreement, or both (i) and (ii).

14.4. Notices. All notices, instructions and other communications hereunder or in connection herewith shall be in writing, shall be sent to the address specified in this Section 14.4 and shall be: (a) delivered personally; (b) sent by registered or certified mail, return receipt requested, postage prepaid; (c) sent via a reputable nationwide overnight courier service; or (d) sent by facsimile transmission. Any such notice, instruction or communication shall be deemed to have been delivered upon receipt if delivered by hand, three (3) Business Days after it is sent by registered or certified mail, return receipt requested, postage prepaid, one (1) Business Day after it is sent via a reputable nationwide overnight courier service, or when transmitted with electronic confirmation of receipt, if transmitted by facsimile (if such transmission is on a Business Day; otherwise, on the next Business Day following such transmission).

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Notices to ROCHE shall be addressed to:

F. Hoffmann-La Roche Ltd
Grenzacherstrasse 124
4070 Basel
Switzerland
Attention: Legal Department
Facsimile: 41 61 688 1396

And:

Hoffmann-La Roche Inc.
340 Kingsland Street
Nutley, New Jersey 07110
USA
Attention: Corporate Secretary
Facsimile: 1-(973) 235-3500

With a copy to:

F. Hoffmann-La Roche Ltd
Grenzacherstrasse 124
4070 Basel
Switzerland
Attention: Pharma Partnering
Facsimile: 41 61 688 7990

Notices to SYNTA shall be addressed to:

Synta Pharmaceuticals Corp.
45 Hartwell Avenue
Lexington, MA 02421
USA
Attention: Business Development
Facsimile: 1-(781) 274-8228

With copies to:

Synta Pharmaceuticals Corp.
45 Hartwell Avenue
Lexington, MA 02421
USA
Attention: General Counsel
Facsimile: 1-(781) 274-8228

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

And:

WilmerHale
60 State Street
Boston, MA USA 02109
Attention: Belinda M. Juran, Esq.
Facsimile: 1-(617) 526-5000

Either Party may change its address by giving notice to the other Party in the manner provided above.

14.5. Entire Agreement. This Agreement (including all attachments hereto) contains the complete understanding of the Parties with respect to the subject matter hereof, sets forth all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties and supersedes all prior understandings and writings relating to such subject matter. In particular, and without limitation, it supersedes and replaces the Confidentiality Agreements and any and all term sheets relating to the transactions contemplated by this Agreement and exchanged between the Parties prior to the Effective Date. For the sake of clarity, nothing herein shall terminate or supersede the Confidential Disclosure Agreement between SYNTA and ROCHE

NUTLEY dated as of August 5, 2005. No amendment, change or addition to this Agreement will be effective or binding on either Party unless reduced to writing and duly executed on behalf of both Parties.

14.6. Headings. Headings in this Agreement are for convenience of reference only and shall not be considered in construing this Agreement.

14.7. Severability. If any provision of this Agreement is held unenforceable by a court or tribunal of competent jurisdiction because it is invalid or conflicts with any Law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected. In such event, the Parties shall negotiate a substitute provision that, to the extent possible, accomplishes the original business purpose.

14.8. Assignment. Neither this Agreement nor any right or obligation hereunder may be assigned or otherwise transferred by any Party without the written consent of the other Party; provided, however that any Party may, without such consent, assign this Agreement, in whole or in part: (a) to any of its respective Affiliates, provided that such Party shall remain jointly and severally liable with such Affiliate in respect of all obligations so assigned and such Affiliate has acknowledged and confirmed in writing that, effective as of such assignment or other transfer, such Affiliate shall be bound by this Agreement as if it were a party to it as and to the identical extent applicable to the transferor; or (b) to any successor in interest by way of merger or acquisition or by sale of all or substantially all of its assets to which this Agreement pertains (whether by merger, reorganization, acquisition, sale or otherwise), provided, that such successor agrees in writing to be bound by the terms of this Agreement as if it were the assigning party. Any purported assignment in violation of this Section 14.8 shall be void. The terms of this

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Agreement shall be binding on and inure to the benefit of the permitted successors and assigns of the Parties.

14.9. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument

14.10. Force Majeure. No Party shall be liable for failure of or delay in performing obligations set forth in this Agreement, and no Party shall be deemed in breach of its obligations, if such failure or delay is due to a natural disaster, explosion, fire, flood, tornadoes, thunderstorms, earthquake, war, terrorism, riots, embargo, losses or shortages of power, labor stoppage, substance or material shortages, damage to or loss of product in transit, events caused by reason of Laws of any Regulatory Authority, events caused by acts or omissions of a Third Party, or any other cause reasonably beyond the control of such Party. The Party affected by such force majeure will provide the other Party with full particulars thereof as soon as it becomes aware of the same (including its good faith estimate of the likely extent and duration of the interference with its activities), and will use Commercially Reasonable Efforts to overcome the difficulties created thereby and to resume performance of its obligations as soon as practicable. If the performance of any such obligation under this Agreement is delayed owing to such a force majeure for any continuous period of more than one hundred eighty (180) days, the Parties will consult with respect to an equitable solution, including the possibility of the mutual termination of this Agreement.

14.11. Press Releases and Other Disclosures. The Parties will cooperate in the release of a joint press release, substantially in the form set forth in Schedule 14.11, as soon as practicable after the Execution Date of this Agreement. The Parties also recognize that each Party may from time to time desire to issue additional press releases and make other public statements or disclosures regarding the subject matter of this Agreement. In such event, the Party desiring to issue an additional press release or make a public statement or disclosure shall provide the other Party with a copy of the proposed press release, statement or disclosure for review, comment and approval at least [***] ([***]) Business Days in advance (or such shorter period as would permit the publicizing Party to comply with applicable Law), which advance approval shall not be unreasonably withheld, conditioned or delayed (except that neither Party shall have any obligation to disclose Confidential Information except to the extent required or permitted pursuant to Article IX). The reviewing Party shall notify the publicizing Party within such [***] ([***]) Business Days period (or such shorter period) of its comments and whether it approves such disclosure. It is agreed that each such disclosure shall only be done with such approval of the other Party and no other public statement or disclosure concerning the existence or terms of this Agreement shall be made, either directly or indirectly, by either Party, without first obtaining the written approval of the other Party. Notwithstanding the foregoing provisions of this Section 14.11 or of Article IX, (a) a Party may make any disclosure or public announcement if the contents of such disclosure or public announcement have previously been made public other than through a breach of this Agreement by the issuing Party; (b) if a Party reasonably determines that a public disclosure shall be required by Law, including in a public filing with the U.S. Securities and Exchange Commission, such Party may disclose the existence and terms of this Agreement

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

and any material developments that occur under this Agreement where so required, provided that such Party shall, to the extent practicable and permitted by applicable Law, notify the other Party and allow the other Party to comment on the proposed disclosure, which comments shall be considered by the disclosing Party in good faith; (c) a Party may disclose the existence and terms of this Agreement under obligations of confidentiality to bona fide potential or actual advisors, consultants, investors, lenders, investment bankers or other potential financial partners in connection with such Party's proposed financing or business combination activities; and (d) a Party may disclose the terms and existence of this Agreement to bona fide potential or actual Sublicensees, as reasonably necessary in connection with a permitted sublicense under the licenses granted in this Agreement.

14.12. Third Party Beneficiaries. None of the provisions of this Agreement shall be for the benefit of or enforceable by any Third Party other than an indemnitee under Article XI. No such Third Party shall obtain any right under any provision of this Agreement or shall by reason of any such provision make any claim in respect of any debt, liability or obligation (or otherwise) against either Party.

14.13. Relationship of the Parties. Each Party shall bear its own costs incurred in the performance of its obligations hereunder without charge or expense to the other, except as expressly provided in this Agreement. Neither Party shall have any responsibility for the hiring, termination or compensation of the other Party's employees or for any employee compensation or benefits of the other Party's employees. No employee or representative of a Party shall have any authority to bind or obligate the other Party for any sum or in any manner whatsoever, or to create or impose any contractual or other liability on the other Party without such other Party's approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, the legal relationship under this Agreement of each Party to the other Party shall be that of independent contractor. Nothing in this Agreement shall be construed to establish a relationship of partners or joint venturers between the Parties.

14.14. Performance by Affiliates. Either Party may use one or more of its Affiliates to perform its obligations and duties hereunder and Affiliates of a Party are expressly granted certain rights herein; provided, that each such Affiliate shall be bound by the corresponding obligations of such Party and the relevant Party shall remain liable hereunder for the prompt payment and performance of all their respective obligations hereunder. ROCHE BASEL and ROCHE NUTLEY shall be jointly and severally liable to SYNTA for any obligations owed hereunder by ROCHE BASEL, ROCHE NUTLEY or ROCHE. ROCHE BASEL and ROCHE NUTLEY shall coordinate their exercise of ROCHE's rights and performance of ROCHE's obligations to ensure that SYNTA does not receive inconsistent notices or instruction with respect thereto.

14.15. Construction. Each Party acknowledges that it has been advised by counsel during the course of negotiation of this Agreement, and, therefore, that this Agreement shall be interpreted without regard to any presumption or rule requiring construction against the Party causing this Agreement to be drafted. Any reference in this Agreement to an Article, Section, subsection, paragraph, clause, Schedule, or Exhibit shall be deemed to be a reference to any

Article, Section, subsection, paragraph, clause, Schedule, or Exhibit, of or to, as the case may be, this Agreement. Except where the context otherwise requires, (a) wherever used, the use of any gender will be applicable to all genders, (b) the word "or" is used in the inclusive sense (and/or), (c) any definition of or reference to any agreement, instrument or other document refers to such agreement, instrument other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or therein), (d) any reference to any Laws refers to such Laws as from time to time enacted, repealed or amended, (e) the words "herein", "hereof" and hereunder", and words of similar import, refer to this Agreement in its entirety and not to any particular provision hereof, and (f) the words "include", "includes" and "including" shall be deemed to be followed by the phrase "but not limited to", "without limitation" or words of similar import.

[Remainder of page intentionally left blank.]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

IN WITNESS WHEREOF, the Parties have entered into this Collaboration and License Agreement as of the Execution Date.

SYNTA PHARMACEUTICALS CORP.

By: /s/ Safi R. Bahcall
Name: Safi R. Bahcall
Title: President & CEO

F. HOFFMANN-LA ROCHE LTD

By: /s/ Jorg Kazenwadel
Name: Jorg Kazenwadel
Title: GAO

By: /s/ Stefan Arnold
Name: Stefan Arnold
Title: Legal Counsel

HOFFMANN-LA ROCHE INC.

By: /s/ George W. Johnston
Name: George W. Johnston
Title: Vice President

[Execution Page]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT A

SYNTA PATENT RIGHTS

Country	Patent Application # or Patent No.	Filing Date
[***]	[***]	[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Country	Patent Application # or Patent No.	Filing Date
[***]	[***]	[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Country	Patent Application # or Patent No.	Filing Date
[***]	[***]	[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Country	Patent Application # or Patent No.	Filing Date
[***]	[***]	[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT B

RESEARCH PLAN

[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT C

DEVELOPMENT PLAN — PRE-IND

[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT D

DEVELOPMENT PLAN — PHASE 1 AND PHASE 2A

[***]

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

SCHEDULE 5.3

Co-Promotion Terms

1. Certain Definitions:

(a) "Detail" means that part of an in-person, face-to-face sales call during which a Sales Representative makes a presentation, including core selling message and features and benefits, of a Licensed Product to one or more member of the Target Audience. E-details and presentations made at conventions and exhibit booths shall not constitute one or more Details.

(b) "Detail Percentage" means (i) with respect to asthma, up to [***] percent ([***]%), as determined by SYNTA, and (ii) with respect to any other Indication other than asthma, up to [***] percent ([***]%), as determined by SYNTA.

(c) "Sales Representative" means a professional pharmaceutical sales representative engaged or employed by either Party to conduct, among other sales responsibilities, Detailing and other promotional efforts with respect to a Co-promoted Product and who has been trained by either Party in accordance with Paragraph 4 below. In the case of SYNTA, a Sales Representatives shall be an employee of SYNTA.

(d) "Sales Representative FTE Rate" means the lower of (a) ROCHE's fully burdened, average annual cost for its Sales Representatives that are ROCHE employees or (b) SYNTA's fully burdened average annual cost for its Sales Representatives that are SYNTA employees; in each case with respect to Sales Representatives promoting the same Co-promoted Product. For purposes of this subsection (d), such costs shall be determined in a manner reasonably consistent between the Parties.

(e) "Target Audience" means the physicians who meet the relevant criteria for promoting and Detailing a Licensed Product for a particular Indication.

2. Co-promotion Guidelines. With respect to each Co-promoted Product, SYNTA shall have the right to assume responsibility for the applicable Detail Percentage of the annual budgeted Detailing effort for such Co-promoted Product in the United States for the applicable Indication. If SYNTA elects to participate in the Co-promotion of a Licensed Product as set forth above, then the Parties shall work in good faith to most effectively assign sales territories and assign target physicians between their respective sales forces. Notwithstanding the foregoing, SYNTA shall have final decision-making authority as to whether it will accept the geographic location and size of its sales territories within the U.S. If SYNTA does not accept a particular geographic location or size of its sales territories within the U.S., then ROCHE shall in good faith discuss with SYNTA a reasonably acceptable alternative such that SYNTA has the ability to provide the Detail Percentage of the annual budgeted Detailing effort for such Co-promoted Product in the United States for the applicable Indication. Promptly following exercise by SYNTA of its right to participate in the Co-promotion of a Product in the United States, ROCHE shall modify its relevant Commercialization plans to provide for the Co-promotion of the Co-promoted Product in the United States for the applicable Indication (the " Co-promotion

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Guidelines"), which shall consider in good faith the reasonable suggestions and comments of SYNTA. Notwithstanding the previous sentence, ROCHE shall have final decision making authority with regard to (i) generating the Co-promotion Guidelines (provided, that, such Co-Promotion Guidelines shall (A) comply with applicable Law, (B) be generated in good faith and (C) not contain provisions that disfavor SYNTA and its Sales Representatives or that cause an undue burden on SYNTA or its Sales Representatives) and (ii) all promotional materials and strategies. The Co-promotion Guidelines shall address the following matters:

(1) the annual budgeted total Detailing effort for the United States;

(2) the allocation of the total Detailing effort between the Parties, it being understood that, SYNTA may elect to be responsible for the applicable Detailing Percentage of the annual budgeted Detailing effort;

(3) the number and position of Details and categories of professionals or institutions to be targeted, and the allocation of such professionals or institutions between the Parties in accordance with the Detail Percentage elected by SYNTA; and

(4) policies and procedures relating to Co-promoted Product sampling.

3. Co-promotion Detail Records and Metrics . Each Party shall manage in good faith its annual Detailing on a basis consistent with the Co-promotion Guidelines. Each Party shall keep track of the number and position of Details performed by its Sales Representatives in accordance with its normal internal reporting procedures. Within [***] ([***]) days after the last day of each Calendar Quarter, each Party shall submit to the other Party a report with respect to the number of Details performed by its Sales Representatives during such Calendar Quarter.

4. Co-promotion Training and Materials .

(a) Except as set forth below, each Party shall be responsible for staffing, training, supervising and compensating (including incentives) its own sales personnel. ROCHE shall be responsible for the development of Co-promoted Product-specific training materials, and shall provide such materials to SYNTA's sales force, at ROCHE's expense. Each Party shall use the same training materials for its respective sales personnel. ROCHE shall conduct Co-promoted Product-specific training of SYNTA's sales management, sales training personnel, and sales representatives, at ROCHE's expense. Following such initial training, any subsequent training of SYNTA's training personnel shall be made available by ROCHE at ROCHE's expense only when ROCHE trains its own Sales Representatives on the Co-promoted Product. All Co-promoted Product-specific training materials prepared and supplied by ROCHE for use in the United States will comply with all applicable Laws and the Co-promotion Guidelines.

(b) SYNTA's Sales Representatives will utilize only the promotional materials provided to them by ROCHE, and will not utilize any other promotional, advertising, communications or other materials, relating to or referring to the Co-promoted Product. SYNTA's Sales Representatives will conduct only those promotional activities relating to the Co-promoted Product that have been approved in advance in accordance with the Co-promotion

Guidelines. SYNTA's Sales Representatives shall not modify, change or alter the promotional materials in any way whatsoever without the express prior written consent of ROCHE. SYNTA's Sales Representatives shall use the promotional materials solely for the purpose of performing their obligations under this Agreement. SYNTA shall require that its Sales Representatives perform Co-promotion activities in compliance with all applicable Laws and the Co-promotion Guidelines.

5. Co-promotion Costs. If SYNTA exercises its right to participate in the Co-promotion of one or more Licensed Products in the United States pursuant to Section 5.3 of this Agreement, then ROCHE shall reimburse SYNTA for all Sales Representative costs incurred by or on behalf of SYNTA or its Affiliates in connection with the Co-promotion of the Co-promoted Product in the United States for the applicable Indication. Costs of SYNTA's Sales Representatives shall be determined on a full-time equivalent cost basis using the Sales Representative FTE Rate. SYNTA shall invoice, on a quarterly basis, ROCHE for the costs of its Sales Representatives to be paid by ROCHE and such invoice shall be paid by ROCHE within [***] ([***]) days after receipt thereof.

Portions of this Exhibit were omitted and have been filed separately with the Secretary of the Commission pursuant to the Company's application requesting confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Synta Pharmaceuticals Corp.:

We consent to the incorporation by reference in the registration statement No. 333-152833 on Form S-3 and the registration statements No. 333-141903, and No. 333-152824 on Form S-8 of Synta Pharmaceuticals Corp. of our report dated March 19, 2008, with respect to the consolidated balance sheet of Synta Pharmaceuticals Corp. and subsidiaries as of December 31, 2007, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive loss and cash flows for each of the years in the two-year period ended December 31, 2007, which report appears in the December 31, 2008 annual report on Form 10-K of Synta Pharmaceuticals Corp.

Our report includes a paragraph that states that the Company adopted Statement of Financial Accounting Standard (SFAS) No.123R, *Share-Based Payment*, effective January 1, 2006.

/s/ KPMG LLP

Boston, Massachusetts
March 25, 2009

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Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-3 No. 333-152833) of Synta Pharmaceuticals Corp. and in the related Prospectus, Registration Statement (Form S-8 No. 333-141903) pertaining to the 2001 Stock Plan, the 2006 Stock Plan and the Non-qualified Stock Option Agreement dated May 27, 2004, and Registration Statement (Form S-8 No. 333-152824) pertaining to the Amended and Restated 2006 Stock Plan of Synta Pharmaceuticals Corp., of our reports dated March 24, 2009, with respect to the consolidated financial statements of Synta Pharmaceuticals Corp. and the effectiveness of internal control over financial reporting of Synta Pharmaceuticals Corp. included in this Annual Report (Form 10-K) for the year ended December 31, 2008.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 24, 2009

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Exhibit 31.1

CERTIFICATIONS UNDER SECTION 302

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

1. I have reviewed this Annual Report on Form 10-K 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.

Dated: March 26, 2009

/s/ SAFI R. BAHCALL, PH.D.

Safi R. Bahcall, Ph.D.

President and Chief Executive Officer
(principal executive officer)

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Exhibit 31.2

CERTIFICATIONS UNDER SECTION 302

I, Keith S. Ehrlich, certify that:

1. I have reviewed this Annual Report on Form 10-K 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.

Dated: March 26, 2009

/s/ KEITH S. EHRLICH, C.P.A.

Keith S. Ehrlich, C.P.A.

Vice President, Finance and Administration,
Chief Financial Officer
(principal accounting and financial officer)

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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 Annual Report on Form 10-K for the year ended December 31, 2008 (the "Form 10-K") 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-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 26, 2009

/s/ SAFI R. BAHCALL, PH.D.

Safi R. Bahcall, Ph.D.
President and Chief Executive Officer
(principal executive officer)

Dated: March 26, 2009

/s/ KEITH S. EHRLICH, C.P.A.

Keith S. Ehrlich, C.P.A.
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.

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