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

Form 10

CymaBay Therapeutics, Inc.
(Exact name of Registrant as specified in its charter)

Delaware	**94-3103561**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

3876 Bay Center Place
Hayward, California 94545
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (510) 293-8800

Securities registered pursuant to Section 12(b) of the Act: None

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

Common Stock, $0.0001 Par Value Per Share

(Title of class)

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

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

We are an "emerging growth company" as defined under the federal securities laws. For implications of our status as an emerging growth company, please see "Business" in Item 1, "Risk Factors" in Item 1A and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 2 of this registration statement.

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CymaBay Therapeutics, Inc.

FORM 10

INFORMATION REQUIRED IN REGISTRATION STATEMENT

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DISCLOSURE REGARDING FORWARD LOOKING STATEMENTS

This Form 10 contains forward-looking statements regarding future events and our future results that are based on current expectations, estimates, forecasts, and projections about the industries in which we operate and the beliefs and assumptions of our management. Words such as "expects," "will," "anticipates," "targets," "goals," "projects," "intends," "plans," "believes," "seeks," "estimates," "potential," "should," "could," variations of such words, and similar expressions are intended to identify forward-looking statements. In addition, any statements which refer to projections of our future financial performance, our anticipated growth and trends in our business, and other characterizations of future events or circumstances, are forward-looking statements, including, but not limited to: statements regarding the steps, timing and costs of our development programs; the availability of additional financing and access to capital; the formation of a trading market for our common stock; discussions and approvals of regulatory agencies; and the period of time for which we will be able to fund our operations. These forward-looking statements are based on management's beliefs and assumptions and on information currently available to our management and involve significant elements of subjective judgment and analysis. Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict, including, but not limited to, the ability to obtain substantial additional funding, obtain and maintain all necessary patents or licenses, demonstrate the safety and efficacy of product candidates at each stage of development, meet applicable regulatory standards and receive required regulatory approvals, meet obligations and required milestones under agreements, manufacture and distribute any product candidates or products that we may develop in commercial quantities at reasonable costs, compete successfully against other products and market products in a profitable manner. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. Readers are directed to the risks and uncertainties identified below, under "Item 1A. Risk Factors" and elsewhere herein, for additional factors that may cause actual results to be different from those expressed in these forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made, and except as required by law, we undertake no obligation to revise or update publicly any forward-looking statements for any reason.

For convenience in this Form 10, "CymaBay," "we," "us," and "our" refer to CymaBay Therapeutics, Inc. and its subsidiaries taken as a whole. The word trademark "CymaBay" is registered on the Principal Register of the United States Patent and Trademark Office. This document also contains trademarks and trade names of other companies, and those trademarks and trade names are the property of their respective owners. We do not intend our use or display of other companies' trademarks or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies or products.

ITEM 1. BUSINESS.

CymaBay Overview

CymaBay Therapeutics Inc., formerly Metabolex, Inc., is focused on developing therapies to treat metabolic diseases. Arhalofenate, our lead product candidate, is being developed for the treatment of gout. Arhalofenate has demonstrated two therapeutic actions: the prevention of painful attacks of gout in joints (flares) and the lowering of serum uric acid (sUA) by promoting excretion of uric acid by the kidney. In addition, arhalofenate provides physicians with what they identified in a recent survey as the most important attributes when selecting a gout therapy: no serious safety issues, well tolerated, minimize frequency of flares and use in patients with a broad range of comorbidities.

CymaBay has completed three Phase 2 studies of arhalofenate in gout patients in which it demonstrated a consistent pattern of reduction of flare incidence and duration and lowering of serum uric acid (sUA). Arhalofenate has established a safe profile in toxicology studies in animals and in clinical studies involving nearly 1,000 patients exposed to arhalofenate. One additional Phase 2b clinical study of 12 weeks duration is planned to confirm the safety and efficacy of a higher dose prior to initiating Phase 3 studies. Arhalofenate has a differentiated profile that is attractive for use in a large population, with significant advantages over marketed

and emerging agents which have limitations in their efficacy, tolerability, and use in patients with common comorbidities. CymaBay is poised to follow arhalofenate with two additional clinical stage product candidates, one in diabetes and one in high unmet/orphan diseases.

Implications of Being an "Emerging Growth Company"

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an "emerging growth company," we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure about our executive compensation arrangements;
- no requirement that we solicit non-binding advisory votes on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

CymaBay intends to take advantage of the reduced disclosure obligations. Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the extended transition period provided in the Securities Act of 1933 as amended, or the Securities Act, for complying with new or revised accounting standards. In other words, an emerging growth company can elect to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. CymaBay has elected to avail itself of this exemption to take advantage of the extended transition period for complying with new or revised accounting standards.

CymaBay could remain an emerging growth company for up to five years, or until the earliest of (i) the last day of the first fiscal year in which CymaBay's annual gross revenues exceed $1 billion, (ii) the date that CymaBay becomes a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of CymaBay's common stock that are held by non-affiliates exceeds $700 million as of the last business day of CymaBay's most recently completed second fiscal quarter, (iii) the date on which CymaBay has issued more than $1 billion in non-convertible debt during the preceding three-year period and (iv) the last day of the fiscal year following the fifth anniversary of the date of the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act. At this time CymaBay expects to remain an "emerging growth company" for the foreseeable future.

CymaBay also will qualify as a "smaller reporting company" and thus have the advantage of not being required to provide the same level of disclosure as larger public companies.

CymaBay Strategy

Our goal is to become a leading biopharmaceutical company focused on developing and commercializing proprietary new medicines for metabolic diseases. Key elements of our strategy are to:

- develop arhalofenate as a treatment for gout, including through a near-term Phase 2b study;
- obtain U.S. Food and Drug Administration (FDA) approval for arhalofenate as a treatment for gout;
- pursue partnerships to broadly commercialize arhalofenate;
- develop our other product candidates subject to availability of resources; and
- strengthen our patent portfolio and other means of protecting exclusivity.

CymaBay Pipeline Overview

Our pipeline includes three unpartnered clinical stage programs and a number of partnered and unpartnered preclinical programs. Across this portfolio, a total of 21 clinical studies, including nine Phase 2 studies, have been completed.

Program	Indication	Partner	Research	Preclinical	P1	P2
Arhalofenate	Gout					
MBX-2982	Diabetes					
MBX-8025	Orphan Disease					
Target	Diabetes	Johnson & Johnson Company				
Targets	Diabetes	Johnson & Johnson Company				
GPR131	Diabetes					

Arhalofenate—Gout

Gouty arthritis, or simply gout, is the most common form of inflammatory arthritis in men and affects more than 8 million people in the United States (U.S.). The hallmark symptom of gout is a flare, characterized by debilitating pain, along with tenderness and inflammation of affected joints. Gout has a significant impact on patients' quality of life and health care utilization. Patients experiencing gout flares miss an average of 4.6 more days of work per year than those without gout. Gout flares also result in increased health care utilization with approximately 35% of moderate and 50% of severe gout patients who experience a flare having at least one acute care visit per year.

Gout flares are recurring and excruciatingly painful episodes of joint inflammation that are triggered by the presence of monosodium urate (MSU) crystals. MSU crystals are formed when the concentration of uric acid in tissues exceeds its solubility limit (approximately 6.8 mg/dL). Elevated levels of circulating uric acid, or hyperuricemia, most commonly results from the under excretion of uric acid in the kidney. This is caused by its reabsorption from urine and transport back to the blood by specialized urate transporters/exchangers in the proximal renal tubule. Long term accumulation of MSU crystals in the body leads to the progression of gout with an increase in the frequency of flares, the involvement of multiple joints, the formation of visible masses of MSU crystals (tophi) and the debilitation that results from deformation of joints.

Many scientific surveys and large clinical studies in gout indicate that gout patients have a high incidence of cardiovascular and metabolic comorbidities, such as hypertension (50% or more), coronary artery disease (>35%), chronic kidney disease (~40%), and diabetes (~20%). Managing patients with these comorbidities is challenging because many of them are contraindicated in the medication currently used to treat gout. Examples include corticosteroids which can cause hypertension and worsening of dysglycemia and non-steroidal anti-inflammatory drugs (NSAIDs) which have renal toxicity.

Market Opportunity

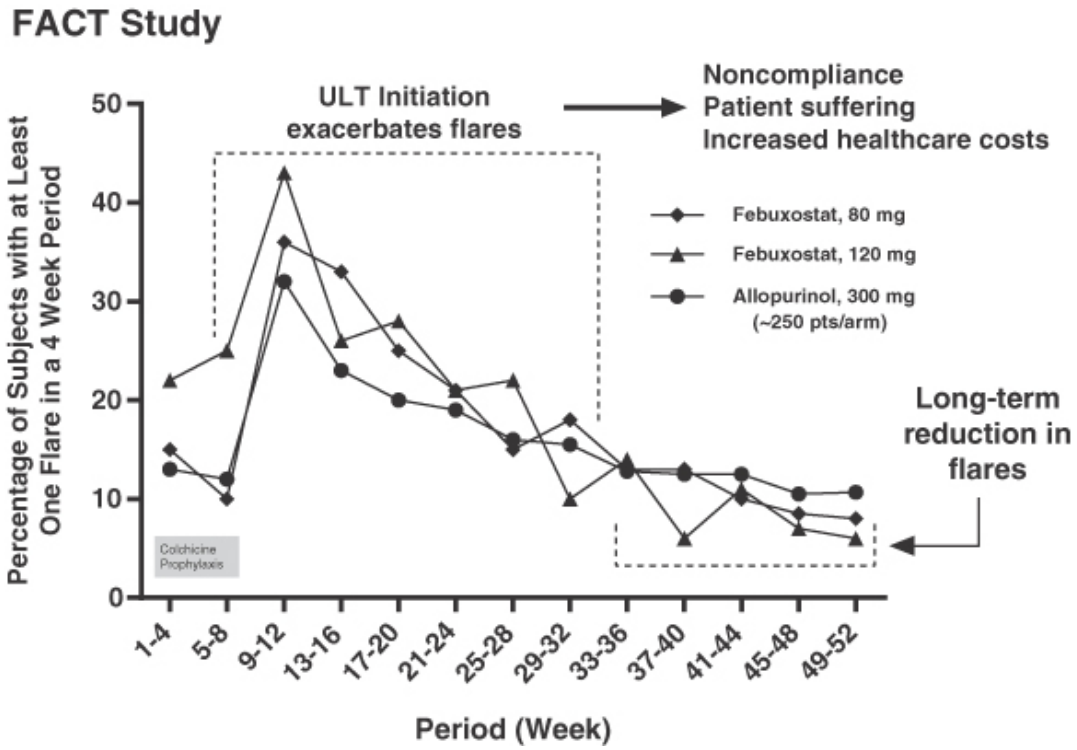
Unmet Needs in the Treatment of Gout

Of the 8 million patients with gout in the U.S., over 3 million are on urate lowering therapy (ULT). Despite being on ULTs, about 1 million patients continue to experience 3 or more flares per year, with significant impact

to patient quality of life and the health care system. According to a 2012 study, patients having 3 or more flares per year typically incur $10,000 more in annual health care costs than patients without gout. In order to halt the progression of the disease and provide long term reduction in flares, MSU crystals must be eliminated from the body. Therefore, the two major goals of gout treatment are to prevent flares and lower sUA to below 6 mg/dL in order to dissolve MSU crystals from tissue. The most important limitation in achieving these goals is that all existing ULTs paradoxically cause an increase in flares upon initiation of treatment, leading many patients to discontinue or avoid therapy. Non-adherence to therapy is a significant problem. In several long term studies, only about 40% of allopurinol patients reached the goal of sUA < 6 mg/dL. Failure to get to goal results in progression of the disease and continued flaring.

Limitations of Current Therapies

Allopurinol and febuxostat (marketed by Takeda Pharmaceutical Company Limited as Uloric®), the most common drugs prescribed to lower sUA, substantially increase flares for up to 6 – 12 months following initiation of treatment (see figure from Takeda's Phase 3 FACT study below). The ULT-initiated flare phenomenon is common to all ULTs and leads to increased health care utilization and high patient discontinuation with progression of disease.



Becker MA, Schumacher HR Jr, Wortmann RL, MacDonald PA, Eustace D, Palo WA, Streit J, Joseph-Ridge N. Febuxostat compared with allopurinol in patients with hyperuricemia and gout. N Engl J Med. 2005;353(23):2450-61.

To address the increase in flare rate associated with initiation of ULT therapy, anti-inflammatory drugs such as colchicine and NSAIDs are co-prescribed with ULTs. However, use of these agents carry a risk for causing adverse effects. Some known adverse effects of colchicine include diarrhea, nausea, vomiting, rhabdomyolysis,

neuromuscular toxicity, and myelosuppression. Chronic use of NSAIDs, which only provide symptom relief, is associated with increased risk of renal toxicity, gastrointestinal (GI) bleeding and cardiovascular events. Similarly, steroids are linked to hypertension and a worsening of blood glucose, which is problematic for diabetics and patients with hypertension and/or heart disease, respectively. Given the prevalence of cardiovascular and metabolic comorbidities in gout patients, the use of these agents can be problematic in a significant number of gout patients.

Anti-Flare Competition

The largest selling branded gout drug in the U.S. is Colcrys® (branded colchicine), prescribed for the prevention and treatment of gout flares. Despite the availability of low cost generic NSAIDs and steroids, Takeda reported U.S. sales of $496 million for Colcrys in 2012 highlighting the importance of preventing and treating gout flares effectively. While colchicine has been shown to reduce the percentage of patients experiencing flares by 57%, it carries significant limitations in terms of safety and tolerability.

Emerging therapies for treating gout flares include the interleukin-1 beta (IL-1ß) neutralizing biologics rilonacept (Arcalyst®) and canakinumab (Ilaris®). These biologics have demonstrated in well controlled clinical trials that this class can reduce ULT-initiated flares by up to ~80%. These agents have validated the blockade of IL-1ß as an approach to flare control. However, only Ilaris is approved for flares and it is administered by injection, has a high cost, and carries a warning for increased risk of serious infections. Ilaris is specifically indicated for the symptomatic treatment of adult patients with frequent gouty arthritis attacks (at least 3 attacks in the previous 12 months) for whom NSAIDs and colchicine are contraindicated, are not tolerated, or do not provide an adequate response, and for whom repeated courses of corticosteroids are not appropriate.

Serum Uric Acid Lowering Competition

Xanthine oxidase (XO) inhibitors (allopurinol and febuxostat) dominate the ULT market with generic allopurinol up to 300 mg accounting for about 90% of ULT prescriptions in the U.S. Allopurinol may potentially lead to undertreatment because of the occurrence of skin rash and a rare but serious hypersensitivity reaction which can be fatal. In addition, it must be used with caution in renally impaired patients (a common comorbidity in gout) and is recommended to undergo dose escalation. Febuxostat, approved by the Food and Drug Administration (FDA) in 2009 and marketed in the U.S. as Uloric, is the first new treatment approved for gout in more than 40 years. Its estimated market penetration was 6.2% in 2012. Its wholesale price is approximately $7 per tablet compared to less than $1 per tablet for generic allopurinol.

Lesinurad is a drug in Phase 3 development, which was recently acquired by AstraZeneca PLC in its purchase of Ardea Biosciences, Inc. for $1.26 billion. Like arhalofenate, it lowers sUA by promoting the excretion of uric acid by the kidney. Lesinurad, like all other ULTs, increases flares upon initiation of treatment, whereas arhalofenate is expected to reduce flares. Lesinurad is being studied as an add-on treatment to allopurinol patients not reaching target sUA levels, as an add-on to febuxostat in tophaceous gout patients and as monotherapy for patients who are intolerant to XO inhibitors. The reported percentage of patients that achieve sUA < 6 mg/dL for the combination of lesinurad and allopurinol at 44 weeks (Ardea Study 203 Safety Extension) was 78% which is similar to the 74% reported for febuxostat at 80 mg in the FACT trial which was one of a similar duration and with a similar patient population.

While medically important, the case for sUA lowering alone is not sufficient to ensure success in the market because hyperuricemia is asymptomatic and patients usually seek treatment for their flares. This is evident by the modest sales of Uloric, which in spite of greater sUA reduction compared to the most common dose of generic allopurinol, has only generated about $216 million in sales (2012). Lesinurad (in development by AstraZeneca), a novel uricosuric drug intended to add to allopurinol in order to provide additional sUA lowering, has sUA lowering comparable to 80 mg Uloric.

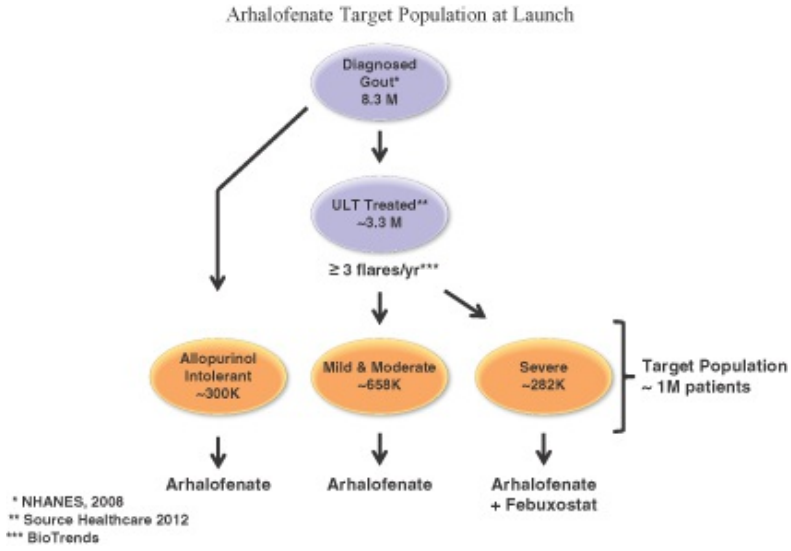
Arhalofenate Addresses the Unmet Needs in Gout

CymaBay believes that a significant opportunity exists for arhalofenate as a result of its combined anti-flare and sUA lowering profile for the treatment of gout. It addresses key unmet needs by preventing flares and achieving sUA target goals as monotherapy. In patients who need additional sUA lowering, it can be combined with other ULTs to significantly reduce sUA without the induction of flares seen with all other ULTs.

CymaBay has undertaken an analysis of the gout market expected at the time of arhalofenate's launch. Arhalofenate has dual pharmacology, whereas all of the gout drugs discussed above are limited to one of either anti-flare or sUA lowering. Given arhalofenate reduces and prevents flares while also lowering sUA, we believe it will be the preferred alternative for the approximately 1 million patients who flare 3 or more times per year despite being on ULT. The poor compliance of patients treated with existing ULTs also leads to more than 1 million discontinuations and restarts of therapy every year. The cycling of patients on and off ULTs offers opportunities for physicians to prescribe arhalofenate for its many advantages over other therapies.

As a monotherapy, we believe arhalofenate will be a single, safe, easy-to-use replacement for the combination of allopurinol and Colcrys, which is the current standard of care.

For those patients needing additional sUA reduction, our clinical trial data have demonstrated that arhalofenate can be combined with febuxostat to provide large (~60%) reductions in sUA, but without the large increases in the incidence of flares seen with all other ULTs.



Arhalofenate Overview

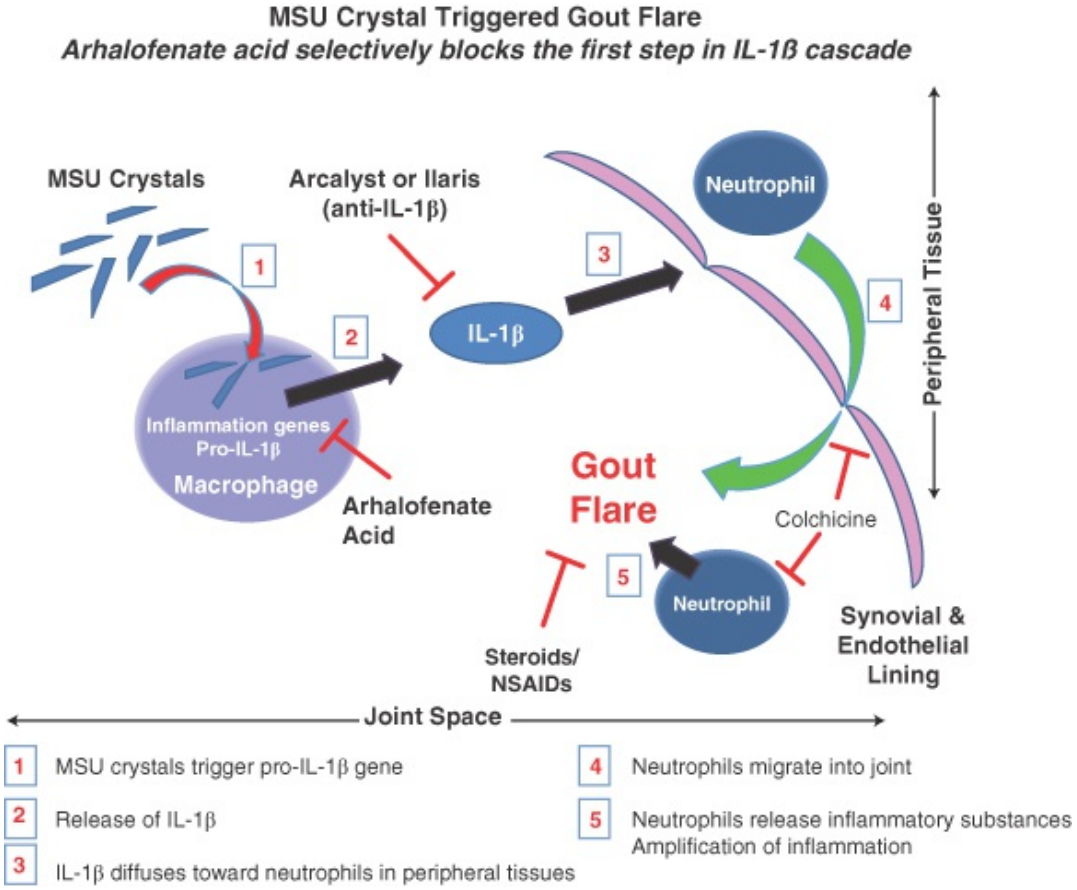
Scientific Rationale

Arhalofenate is a prodrug which upon absorption is converted to its active form, arhalofenate acid. Arhalofenate acid's dual actions are to block the MSU crystal-stimulated production of IL-1ß by macrophages in joints and to inhibit uric acid reabsorption by urate transporters in the kidney.

Anti-Inflammatory Activity

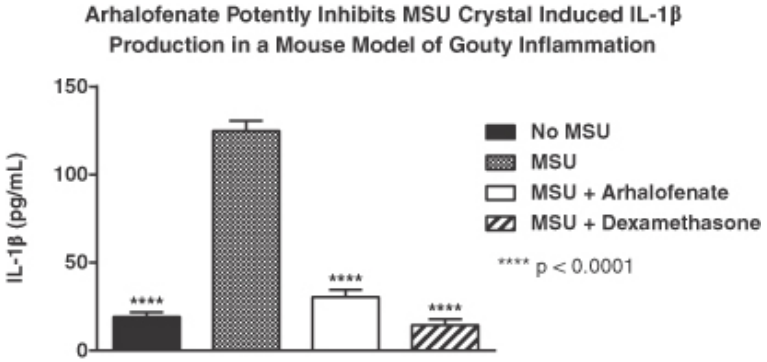
A simplified model of gouty inflammation which reflects many of the important features of the IL-1ß mediated inflammatory cascade caused by MSU crystals is depicted below. Arhalofenate (through arhalofenate acid) is unique among available anti-inflammatory drugs because it prevents the initiation of the inflammatory

cascade and acts upstream from other therapies. The anti-inflammatory action comes from a unique trans-repression (a type of inhibition) of peroxisome proliferator-activated receptor-gamma (PPARγ) which blocks the production of IL-1ß and other inflammatory proteins by macrophages that produce a flare. Neutralization of IL-1ß has been shown in clinical trials to reduce flares by about 70%. Because arhalofenate acid acts upstream of colchicine, it may be able to replace colchicine.



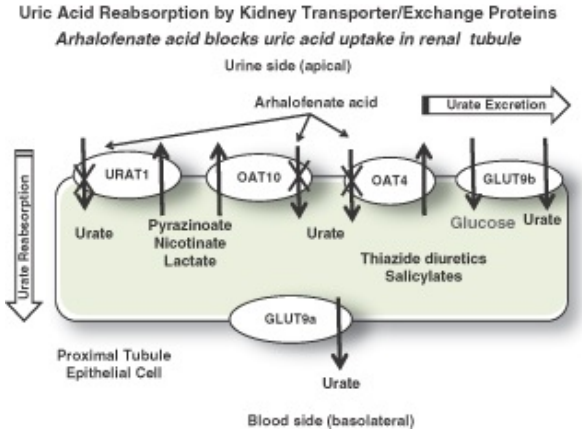
The anti-inflammatory mechanism of arhalofenate acid has been elucidated in preclinical models. In experiments with isolated macrophages, arhalofenate acid is able to suppress MSU crystal-stimulated release of IL-1ß protein by blocking expression of the precursor pro-IL-1ß gene. Importantly, this activity is seen at concentrations that are achieved in humans.

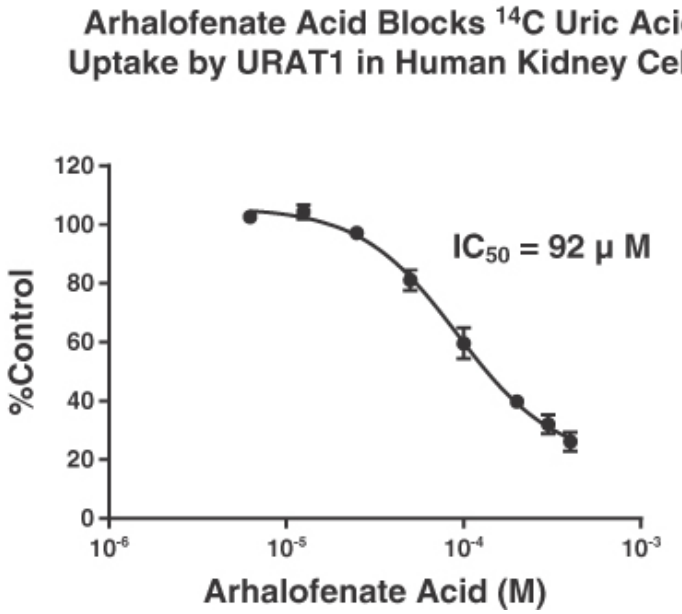
In vivo confirmation of this effect was seen in a mouse model of gouty inflammation. Injecting MSU crystals into mice produces many of the molecular and cellular steps involved in a gout flare. As shown below, administration of arhalofenate at doses that produce clinically relevant exposures was able to suppress the release of IL-1ß in response to MSU crystals to a degree similar to that of dexamethasone. Importantly, it also suppresses other important inflammatory mediators that colchicine does not. This suggests arhalofenate could be superior to colchicine in being able to suppress additional inflammatory pathways caused by MSU crystals.



Uric Acid Lowering Activity

Uric acid is removed from the body by filtration through the kidney into urine. For about 80-90% of patients, hyperuricemia is a result of under excretion of uric acid due to its reabsorption by organic anion transporters (OAT) in the proximal renal tubule. As depicted in the figure below, arhalofenate acid blocks ^{14}C-uric acid uptake in an embryonic kidney cell line that expresses human urate transporter 1 (URAT1), one of the predominant renal transporters of urate. The inhibition is pharmacologically relevant because it occurs at concentrations that are less than those seen in human urine in clinical trials. Arhalofenate acid was shown to inhibit uric acid uptake by URAT1, OAT4 and OAT10, three of the transporters that play a critical role in uric acid reabsorption. The pattern of attenuation of uric acid transport is similar to that of other uricosuric drugs such as lesinurad. This mechanism is consistent with the clinical pharmacology in which arhalofenate was shown to dose-dependently increase urate clearance into urine in gout patients.





The available preclinical evidence provides an explanation for the dual mode-of-action observed for arhalofenate in treating gout patients. CymaBay has completed three clinical studies in gout patients which have shown that arhalofenate has the potential for both decreasing the incidence, severity and duration of gout flares, including those that often occur upon initiation of ULT, and reducing sUA. This profile would seem well suited to the treatment of gout.

CymaBay has completed a robust nonclinical program for arhalofenate, including genotoxicity, chronic repeat dose toxicology in rats and monkeys, safety pharmacology, reproductive toxicology and 2-year rodent carcinogenicity studies. The results of these studies have all been submitted to the FDA.

CymaBay has developed a manufacturing process for arhalofenate and ~200 kg of drug substance is available to initiate the Phase 3 program. Tablets for the Phase 2b study have already been manufactured. Both the drug substance and tablet manufacturing processes will be scaled up to support the registration and commercial chemistry, manufacturing and controls program.

Clinical Studies with Arhalofenate

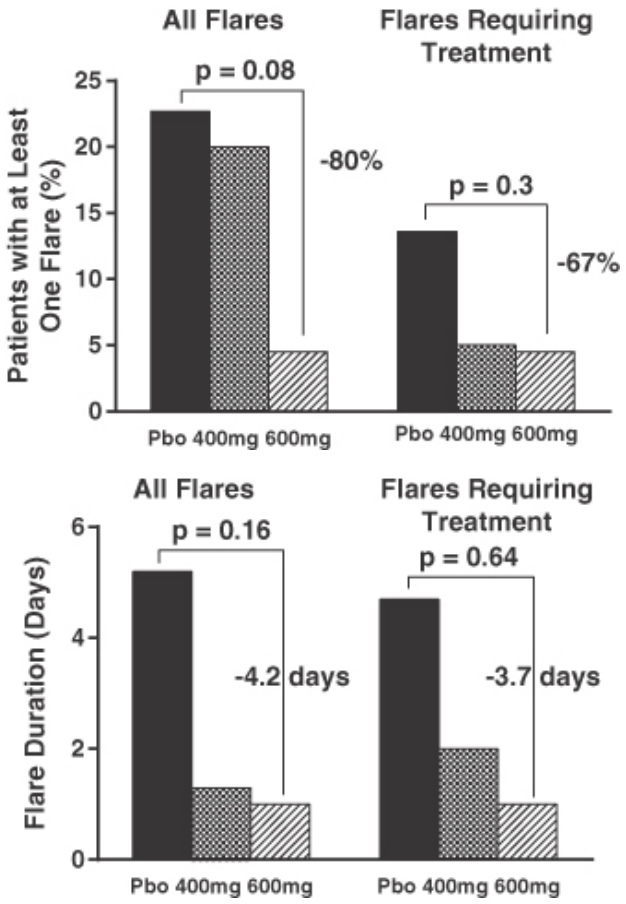
The Gout Development Program

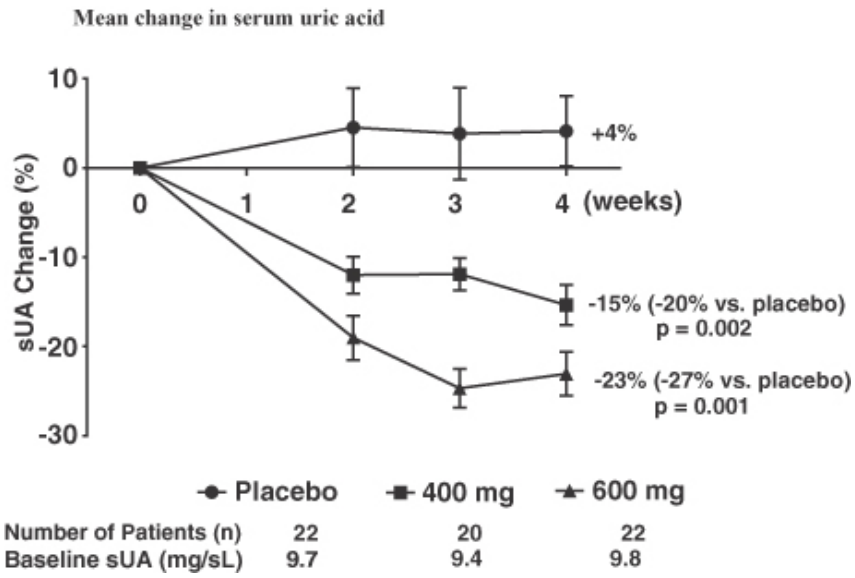
Arhalofenate has been studied in three Phase 2 gout clinical trials including a monotherapy study, febuxostat combination study and an allopurinol combination study.

Monotherapy Study

The monotherapy study was a randomized, double-blind, placebo-controlled study evaluating the safety and efficacy of arhalofenate for the treatment of hyperuricemia in patients with gout. Arhalofenate was given daily at doses of 400 mg and 600 mg for four weeks. A total of 64 patients completed the treatment phase: 22 received placebo, 20 received arhalofenate 400 mg, and 22 received arhalofenate 600 mg. All randomized patients also received colchicine 0.6 mg daily as flare prophylaxis. Compared to placebo, patients treated with arhalofenate demonstrated dose-dependent reductions in gout flare and sUA, as shown below. The proportion of patients

reporting at least one flare during the treatment phase was 23% (5 of 22), 20% (4 of 20), and 5% (1 of 22) in the placebo, 400 mg, and 600 mg groups, respectively. In addition to flare frequency, both severity and duration of flare were less in arhalofenate-treated patients.



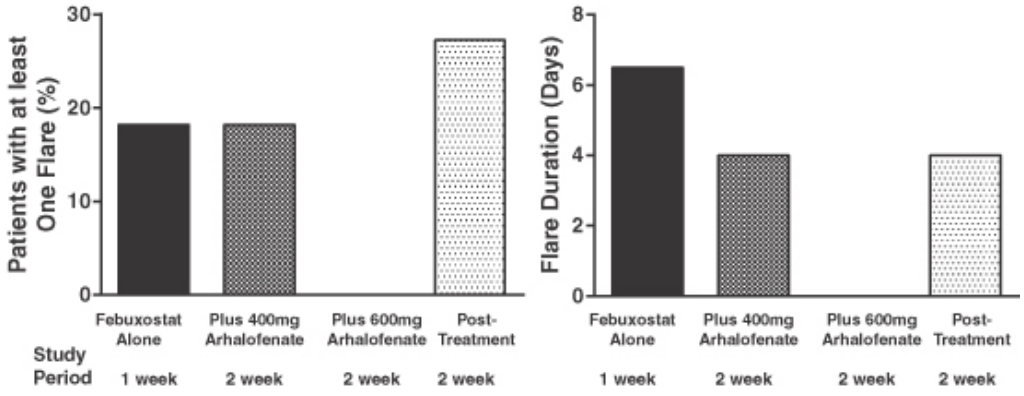


Overall, adverse events (AEs) were similar among the placebo and arhalofenate-treated groups. There were no severe or serious AEs, discontinuations due to AEs, or deaths during the study. Overall, the types and frequencies of AEs were similar among patients receiving placebo or arhalofenate 400 mg or 600 mg and there were no clinically meaningful differences observed in safety laboratory test results.

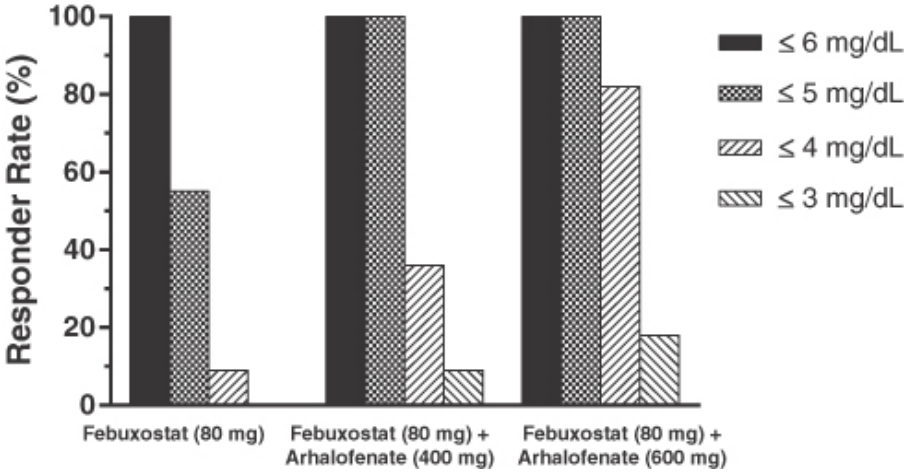
Febuxostat Combination Study

In the febuxostat combination study, arhalofenate up to 600 mg daily was added to febuxostat 80 mg in an open-label, in-patient study to determine the efficacy, safety, and tolerability of arhalofenate in combination with 80 mg febuxostat once daily. A total of 11 patients were dosed with 80 mg febuxostat during Week 1, 80 mg febuxostat plus 400 mg arhalofenate during Weeks 2-3 and 80 mg febuxostat plus 600 mg arhalofenate during Weeks 4-5. All patients also received 0.6 mg colchicine daily as prophylaxis for gout flare.

The proportion of these patients reporting at least one flare was 18% (2 of 11 patients) during Week 1 (febuxostat 80 mg) and 18% (2 of 11 patients) during Weeks 2-3 (febuxostat 80 mg plus arhalofenate 400 mg), respectively. No patient reported the initiation of a flare during Weeks 4-5 (febuxostat 80 mg plus arhalofenate 600 mg). The proportion of patients reporting at least one flare in the two-week follow-up period was 27% (3 of 11 patients).



Mean sUA reductions were -48% at Day 8 (febuxostat 80 mg), -54% at Day 22 (febuxostat 80 mg plus arhalofenate 400 mg), and -60% at Day 36 (febuxostat 80 mg plus arhalofenate 600 mg). Historically, one week of dosing with febuxostat 80 mg has been shown to give the full effect of sUA reduction, and the mean reductions in this study at Day 8 are consistent with other reported study results. The proportion of patients who achieved various sUA target levels during treatment is shown below. Patients with advanced gout have large stores of MSU crystals in the body, and driving sUA levels to lower values (eg, < 4 mg/dL) has been shown with other ULTs to accelerate clinical benefits such as the reduction of tophi (masses of MSU crystals).

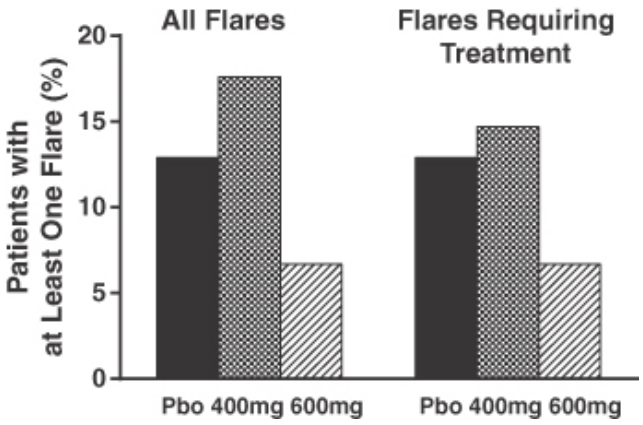


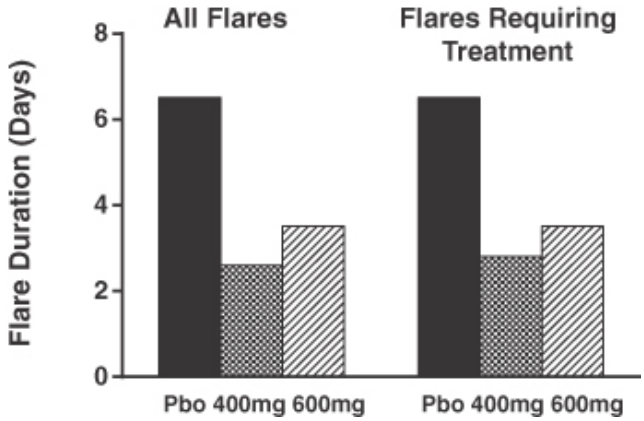
No patients experienced severe or serious AEs or deaths, and there were no discontinuations because of AEs. No clinically meaningful differences were observed among the study treatments in safety laboratory test results.

Allopurinol Combination Study

This study was a randomized, double-blind, placebo-controlled clinical trial designed to evaluate the efficacy, safety and tolerability of arhalofenate 400 mg and 600 mg when given in combination with allopurinol 300 mg and also to evaluate the effect of arhalofenate on the pharmacokinetics (PK) of allopurinol and its active metabolite (oxypurinol). Arhalofenate (or placebo) was given once daily at doses of 400 mg and 600 mg, in addition to allopurinol 300 mg, for four weeks to patients who had failed to reach the sUA target of <6 mg/dL with allopurinol 300 mg. All randomized patients also received colchicine 0.6 mg daily as flare prophylaxis. A reduction in gout flares was observed in the arhalofenate plus allopurinol groups compared to the allopurinol only group. The proportion of patients in a pre-specified per protocol population reporting at least one flare during the 4-week treatment phase was 13% (4 of 31) in the allopurinol 300 mg only group, 18% (6 of 34) in the allopurinol 300 mg plus arhalofenate 400 mg group, and 7% (2 of 32) in the allopurinol 300 mg plus arhalofenate 600 mg group. The mean duration of flares was longer in the allopurinol plus placebo group (6.5 days) than in either the allopurinol plus 400 mg arhalofenate group (2.6 days) or the allopurinol plus 600 mg arhalofenate group (3.5 days).

There was no statistically significant difference in sUA reduction in the arhalofenate plus allopurinol groups compared to the allopurinol only group. In the per protocol population, the proportion of patients who reached a sUA target of <6 mg/dL at the end of the treatment phase was 35.5%, 52.9%, and 43.3% in the allopurinol plus placebo group, the allopurinol plus 400 mg arhalofenate group, and the allopurinol plus 600 mg arhalofenate group, respectively. The modest additional sUA reduction observed in the arhalofenate plus allopurinol groups in this study is attributable to an interaction in which arhalofenate reduces the concentration of oxypurinol, the active metabolite of allopurinol. Specifically, arhalofenate promotes the excretion of uric acid as well as oxypurinol given both are typically reabsorbed into the blood stream through the same renal transporters arhalofenate is responsible for blocking.





No severe or serious AEs were reported. Two patients discontinued from the study due to moderate AEs. Overall, the types and frequencies of AEs were similar among the treatment groups and there were no clinically meaningful differences observed among the study treatments in safety laboratory test results.

Prior Clinical Experience with Arhalofenate

Prior to the Phase 2 trials in gout described above, eight Phase 1 studies and four Phase 2 studies in type 2 diabetes mellitus (T2DM) were conducted with arhalofenate. In these studies a total of 873 subjects were studied. Daily treatment with arhalofenate up to 600 mg for up to 24 weeks in T2DM patients was found to be safe and well tolerated.

In these T2DM studies, daily treatment with arhalofenate up to 600 mg for up to 24 weeks in T2DM patients also showed improvements in glucose parameters (hemoglobin A1c [HbA1c] and fasting plasma glucose), as well as a lowering of serum triglycerides in patients with elevated levels at baseline. Arhalofenate was found to be safe and well tolerated with no meaningful treatment group differences in laboratory safety values and AEs including special interest AEs (edema, weight gain, and upper GI AEs), discontinuation due to AEs, serious AEs, and death. There were no reports of urinary tract stones in any of these studies.

A pooled analysis of sUA data from these diabetes studies showed statistically significant dose dependent reductions from baseline in mean sUA with arhalofenate: +2% in the placebo group (n=252), -11% in the 200 mg group (n=125), -20% in the 400 mg group (n=174), and -27% in the 600 mg group (n=159); $p<0.0001$ for each active group vs. placebo comparison. Similar sUA reduction was observed in patients with mild to moderate renal impairment and without additional worsening of renal function. Comparable sUA reduction was also achieved with arhalofenate in patients on concomitant low-dose aspirin (up to 325 mg daily) and on diuretic (thiazide or loop diuretic) therapy.

Conclusions of Arhalofenate's Clinical Experience

Arhalofenate has been studied in a total of 15 clinical trials with nearly a thousand subjects. These include Phase 1 studies of safety, tolerability and PK, Phase 2 studies of blood glucose effects in diabetics, and Phase 2 studies of sUA and flare effects in gout patients. Arhalofenate has had a consistent pattern of good safety and tolerability. Despite having differing objectives across these studies, arhalofenate demonstrated comparable dose-dependent reductions in sUA.

In addition to its primary characteristics for reduction of flare incidence and duration and in sUA lowering, arhalofenate also has additional features which are important in the gout population. It has shown an ability to lower triglycerides in subsets of patients with elevated serum triglycerides and to improve blood glucose

parameters in diabetics, which are common comorbidities in gout patients. In an exploratory analysis, it retained its ability to lower sUA in patients with impaired renal function, another highly prevalent comorbidity in gout patients. In addition, arhalofenate gave comparable reductions in sUA whether or not patients were on low dose aspirin or thiazide diuretic therapies, these latter agents being known to exacerbate hyperuricemia and to sometimes trigger flares when their treatment is initiated.

In the treatment of over a hundred patients with hyperuricemia and a diagnosis of gout, arhalofenate was safe and well tolerated and produced a consistent reduction in flare incidence and duration and in lowering sUA whether administered alone or in combination with allopurinol 300 mg or febuxostat 80 mg. The time-course of reductions in sUA was gradual and favorable for those of a drug intended to treat gout in which rapid fluctuations in sUA levels are inadvisable. It was shown as a single agent to dose-dependently increase urate excretion and fractional urate clearance, establishing that its sUA mechanism is uricosuria (i.e., it is a uricosuric).

Future Clinical Development of Arhalofenate for Treatment of Gout

Planned Phase 2b Study

The goal of our planned Phase 2b study will be to investigate the full potential benefit of arhalofenate monotherapy with regard to flare prevention and sUA lowering in a more robust, longer trial. Importantly, we intend to investigate the benefits of two doses of arhalofenate monotherapy, including a higher dose than we studied in previous gout studies, without colchicine. The study includes the most common dose of allopurinol (300 mg) with and without colchicine for flare prophylaxis in order to assess treatment effects for sUA and flares against standard of care.

This randomized, double-blind, placebo-controlled Phase 2b study is designed to evaluate the efficacy of each of two dose levels of arhalofenate for the prevention of flares, without concomitant use of colchicine, and the reduction of sUA in approximately 225 gout patients with hyperuricemia and a history of frequent flares. Arhalofenate 600 mg and 800 mg will be administered once daily for up to 12 weeks. Allopurinol 300 mg once daily will also be included as an active control treatment.

In the multiple ascending dose study of healthy volunteers, a sUA reduction of 33% was observed from baseline following 8 days of arhalofenate 800 mg daily. A similar level of sUA lowering is expected in gout patients and would be comparable to the most commonly used dosages of marketed ULTs (e.g. allopurinol 300 mg or febuxostat 40 mg).

Based on seven completed Phase 2 studies, including three studies in gout patients with arhalofenate up to 600 mg daily for up to 24 weeks, it is expected that a 12-week study in gout patients with arhalofenate 600 mg and 800 mg should be safe and well tolerated.

The Phase 2b study is designed to be conducted to a research standard that would support the consideration of this trial, if positive, as a registration study. If this Phase 2b study is successful, an appropriate Phase 3 dose of arhalofenate will be selected based on efficacy, safety, and tolerability, and Phase 3 pivotal studies, similar in design and endpoints, will be initiated.

Phase 3 Gout Program

The details (design, size, duration, etc.) of the Phase 3 program will be the subject of discussion at an End-of-Phase 2 meeting with the FDA, and will be designed to support an indication for both arhalofenate monotherapy and combination treatment with febuxostat.

In order to support this indication, and the broad use of arhalofenate to both prevent flares and reduce sUA, the Phase 3 clinical program is currently planned to include two pivotal gout studies: one arhalofenate

monotherapy study, and one study of arhalofenate in combination with febuxostat. These will both be randomized, double-blind studies, with appropriate controls and statistical power. The program will also include a single arm, open label safety study to accumulate additional longer term safety data needed for the New Drug Application (at least 100 patients dosed for 1 year). A small number of Phase 1 studies, including necessary drug-drug interaction studies, or special population studies, will also be conducted during Phase 3.

MBX-8025

MBX-8025 has potential therapeutic application for disorders linked to deficits in lipid storage, handling and utilization, many of which result in metabolic disorders. To date, it has been in development as a first-in-class treatment that effectively addresses all three lipid disorders associated with mixed dyslipidemia as well as a majority of the cardiovascular risk factors that define metabolic syndrome. The future development program will focus on high unmet need indications in dyslipidemia as well as in high unmet need specialty and orphan diseases.

Scientific Rationale/Nonclinical Overview

MBX-8025 is a selective agonist for the peroxisome proliferator-activated receptor delta (PPARδ), a nuclear receptor that regulates genes involved in lipid storage and transport (particularly in fatty acid oxidation) and insulin signaling and sensitivity. In preclinical studies in rodents, dogs and primates, MBX-8025 demonstrated a variety of beneficial effects on the lipid profile and other metabolic parameters. MBX-8025 treatment increased peripheral oxidation of fatty acids leading to reduced levels of triglycerides (TGs) and low-density lipoprotein (LDL), while raising high-density lipoprotein (HDL). MBX-8025 inhibited fat mass accumulation, resulting in attenuation of body weight gain in rodent models of obesity.

Three-month toxicology studies in rodents (alone and in combination with atorvastatin) and in monkeys have been completed. In addition, the 2-year carcinogenicity studies in mice and rats have been completed.

The multiple beneficial actions of MBX-8025 support continued clinical development.

Clinical Studies with MBX-8025

Five Phase 1 clinical studies and one Phase 2 clinical study with MBX-8025 have been completed. The 8-week Phase 2 study investigated MBX-8025 at doses of 50 or 100 mg/day in moderately obese patients with mixed dyslipidemia. The study demonstrated that treatment with MBX-8025 led to significant reductions in total LDL (~20%) and selective depletion of the small dense atherogenic LDL particles, resulting in an exceptional improvement in the LDL particle size profile. It also decreased TGs (~30%) and raised HDL (~12%). This unique combination of effects significantly decreased the atherogenic risk of patients' lipid profile. When administered in combination with atorvastatin (Lipitor®), MBX-8025 provided a comprehensive improvement in all lipid and cardiovascular risk parameters without side effects seen in other combination lipid therapies. The beneficial effects demonstrated in the Phase 2 study have been published in the peer-reviewed journals *Atherosclerosis* and *Journal of Clinical Endocrinology & Metabolism*.

In addition, MBX-8025 addressed other aspects of metabolic syndrome, including improvements in insulin sensitivity and trends toward decreased waist circumference and body fat. Over half of the patients that entered the Phase 2 study meeting the criteria for metabolic syndrome no longer met the criteria at the end of the study. MBX-8025 demonstrated potent anti-inflammatory activity resulting in 43-72% reductions of high-sensitivity C-reactive protein. MBX-8025 also improved surrogate markers of liver health, suggesting the possibility that it may reduce hepatic steatosis. All of these effects provide potential benefits to patients in multiple high unmet need diseases.

Next Steps in Development

The pharmacological action of MBX-8025 has been established in the setting of mixed dyslipidemia, but because this indication does have other therapies available, its greatest benefit to patients is likely to be in orphan

or other high unmet need indications. CymaBay is actively engaged in a selection process that involves using the scientific literature together with scientific experts and regulatory authorities to prioritize among the therapeutic opportunities that have a rational connection to PPARδ's role in human health and disease.

MBX-2982

Type 2 diabetes is a chronic debilitating disease characterized by a progressive loss of homeostatic control of glucose in the blood and other tissues. The normal handling by the body of sugar, fat and protein in the diet becomes deranged in diabetics through the loss of the ability by the body to appropriately regulate the secretion and action of key hormones such as insulin and glucagon. Chronic exposure of diabetics to elevated glucose levels (hyperglycemia) leads to loss of sensitivity of tissues to the action of insulin and to the eventual destruction of pancreatic islets, the body's source of insulin. It also results over time in microvessel disease, a broad term in which the deterioration of the structure and function of peripheral vasculature results in diminished delivery of blood, oxygen and nutrients to tissue. The ultimate consequences of microvessel disease include increased risk for the deterioration of kidney function, for peripheral limb ischemia with the possibility of infection and limb amputation, for the deterioration of peripheral nerves in limb extremities leading to chronic pain and loss of feeling with a heightened risk of unintended self-injury, and for the loss of function in the retina with diminished visual acuity including blindness. Another important consequence of chronic hyperglycemia is the strong association with increased cardiovascular and cerebrovascular disease including hypertension and atherosclerosis, which are associated with untoward consequences that include angina, myocardial infarction, heart failure, and stroke. An assessment by the U.S. CDC (2011 National Diabetes Fact Sheet) reported that heart disease (68%) and stroke (15%) are commonly listed on diabetes-related death certificates among people 65 or older.

According to the International Diabetes Federation (IDF), approximately 371 million people, over 8% of the world's population, had diabetes in 2012. In North America, IDF estimated that 10.5% of the adult population (38 million) have diabetes of which 29% are undiagnosed. The American Diabetes Association (ADA) concluded that in 2011 there were 79 million Americans with pre-diabetic state of impaired glucose tolerance. Cost estimates (IDF, 2012) are that the 24 million diabetics in the U.S. spend on average $8,478 while the ADA states that 12% of national pharmacy costs are for drugs and diabetic supplies.

There are several established and emerging classes of drug therapies for diabetes. In the end stage of the disease, patients become dependent on various forms of injectable insulin to manage their blood glucose. A major goal of the development of oral anti–diabetic drugs is to regulate glucose without the risk for hypoglycemia (potentially life threatening) and/or cause an increase in other cardiovascular risk factors such as weight gain or hypertension. Diabetes is managed with a combination of diet, exercise and other lifestyle changes, and when glucose is inadequately controlled, metformin (generic) is the most-common first-line therapy. Other common oral anti-diabetics include the insulin sensitizer pioglitizone and dipeptidyl peptidase-4 inhibitors that include sitagliptin. Older drugs such as sulfonylureas are still widely used, but less so in developed countries due to their increased risk for hypoglycemia and the lack of durability in response for many patients. It is quite common for patients to take more than one class of drugs in order to get to the goal of reducing HbA1c, an integrated laboratory marker of blood glucose levels, to below 7%.

Canagliflozin is the first of a new class of drugs called the inhibitors of the sodium glucose co-transporter 2 (SGLT2). This drug promotes excretion of glucose into urine by preventing its reabsorption in the kidney thereby lowering blood glucose. It has a secondary benefit of providing weight loss.

Over the last decade, injectable drugs have emerged as competing drugs with significant benefits in glucose control as well as effects on weight loss and the potential to protect the pancreas from the damage wrought by the progression of diabetes. These drugs are primarily analogs of the natural hormone glucagon-like 1 peptide (GLP-1), and include exenatide, liraglitide and lixisenatide among others. These drugs are given by subcutaneous injection once or twice daily. Their action is to provide glucose-regulated insulin secretion with weight loss and the potential to preserve function of pancreatic islets. New members of this class with once weekly to once

monthly dose schedules have been approved or are in late stage development. In spite of the variety of drugs available for the treatment of diabetes, the medications used to manage diabetes have not led to optimal control of hyperglycemia and many are associated with dose-limiting side effects. MBX-2982 is an oral, G-protein coupled receptor (GPR119) agonist being evaluated as a novel therapeutic agent for patients with T2DM, with a dual mechanism including both direct- and incretin-mediated effects on glucose-dependent insulin secretion, as well as potentially beneficial effects on islet health.

GPR119 is expressed in pancreatic islet cells and enteroendocrine cells. Activation of GPR119 by endogenous ligand or GPR119 agonists in pancreatic ß-islets results in direct stimulation of glucose-dependent insulin secretion *in vitro*. Activation of GPR119 by endogenous ligand or GPR119 agonists in enteroendocrine cells results in stimulation of glucagon-like peptide 1 (GLP-1) and gastrointestinal inhibitory peptide release, and subsequent enhanced glucose-dependent insulin secretion and suppression of glucagon, leading to improved acute glucose tolerance, both *in vitro* and *in vivo*. MBX-2982 was synthesized and screened as a GPR119 agonist, and is capable of activating endogenous GPR119 in a cell line over-expressing the receptor. MBX-2982 has been shown to increase glucose-dependent insulin secretion in both *in vitro* and in animal models. MBX-2982 also increases incretin hormone levels in animals, which may contribute to its glucose lowering effects. The effects of MBX-2982 on glucose lowering were not present in GPR119 deficient mice, thus demonstrating that its *in vivo* pharmacology is due to stimulation of the GPR119 receptor.

Nonclinical studies show that MBX-2982 has desirable effects on blood glucose levels, and this effect is additive to the effect of the dipeptidyl peptidase-4 (DPP-4) inhibitor, sitagliptin. Based on these results, there may be an important role for MBX-2982 as a novel therapeutic agent in the treatment of T2DM, alone or in combination with other anti-diabetic agents, including the DPP-4 inhibitors. Presently, there are no other agents approved in the U.S. within this pharmacologic class for the treatment of T2DM.

Extensive preclinical toxicological (up to 6 months in rats and dogs) have been completed, and PK profiling of MBX-2982 has shown low potential for safety risk.

Clinical Studies with MBX-2982

Four Phase 1 clinical studies and one Phase 2 clinical study with MBX-2982 have been completed and the safety and PK review showed no safety or tolerability concerns with MBX-2982 administered in escalating doses (25, 100, and 300 mg/day) tested for up to 4 weeks of dosing. A four-week study in type 2 diabetics can be summarized as follows:

- MBX-2982 generally lowered mean weighted glucose and postprandial glucose during an extended mixed-meal tolerance test (MMTT), although not always to a statistically significant degree and not to the extent of sitagliptin. The effect at the 300 mg dose may have been mitigated by the inclusion of a very small number of patients who experienced extreme worsening of glucose to the degree of being statistical outliers. Decreases in fasting glucose were generally not observed with MBX-2982.
- Four weeks of treatment with MBX-2982 tended to increase insulin, active GLP-1, and total GLP-1 during an extended MMTT. Decreases in glucagon were not as consistently observed. Changes in active GLP-1 were not as robust as those observed with sitagliptin. Four weeks of treatment with MBX-2982 also tended to increase fasting insulin and c-peptide, and decrease fasting triglycerides.
- Overall, the pattern of biomarker changes suggests that MBX-2982 may decrease glucose, potentially through effects on GLP-1, glucagon, and insulin. Changes in HbA1c are difficult to assess over a 4-week treatment period, but trended in the downward direction. Glucose-lowering effects and mechanism of action will need to be explored more robustly in longer duration trials of MBX-2982.
- The PK results observed in this study are similar to those seen in the completed Phase 1 study that used the same formulation, demonstrating dose-dependent increases in drug exposure and a profile supporting once daily oral dosing.

- MBX-2982 at doses of 25, 100, and 300 mg was safe and well tolerated.

Based on these results, further testing with MBX-2982 in combination with sitagliptin and/or metformin for the treatment of diabetes is warranted.

Future Clinical Development of MBX-2982: Summary and Conclusions

A proof-of-concept study has been designed to determine the effects of MBX-2982 on fasting and post-challenge blood glucose in patients with T2DM either as dual therapy in combination with either metformin or sitagliptin, or as triple therapy in combination with metformin and sitagliptin. Secondary goals would be to determine the effects of MBX-2982 on islet beta-cell function as assessed using a MMTT and a graded glucose infusion, and to determine the effects of MBX-2982 on circulating levels of GLP-1.

The study design is a double-blind, randomized, placebo-controlled, parallel group study enrolling approximately 75 patients in order to ensure 64 completers for the 14-day treatment period. Subjects will be type 2 diabetics treated with medical nutritional therapy alone for > 2 weeks, and either treatment naïve or washed off of metformin or sulfonylurea. Other criteria are typical for diabetics in a study of this type. Successful achievement of study goals would position the drug for a Phase 2b study, followed by a Phase 3 program.

CymaBay does not anticipate conducting this study until a suitable partner is found to contribute funding or resources for the project, or until sometime in the future when the goals and capital needs of arhalofenate are fully met.

Preclinical Programs

The most advanced preclinical program is one developing agonists of the GPR131 receptor, also known as TGR5 or the bile acid receptor. GPR131 agonists have utility in the treatment of T2DM by acting as an oral GLP-1 secretagogue with clinical features that mimic those of the injectable drug liraglutide (Victoza®). In preclinical models it causes potent release of GLP-1 that is amplified by co-treatment with sitagliptin. It has the potential to stimulate fat-restricted energy metabolism. Among its features supported by its scientific rationale are the potential for anti-inflammatory activity with insulin sensitization effects, and robust glucose control with no hypoglycemia, favorable weight effects, and improvement in beta cell function.

CymaBay has discovered three novel scaffolds from which it has prepared more than 750 compounds with leads possessing good pharmaceutical properties. Two patent applications are pending. The compounds possess nanomolar activity and have demonstrated robust *in vivo* GLP-1 secretion and glucose lowering activities. The next step in the lead optimization phase is to improve their metabolic stability and other key drug-like features, as well as to document their effects in combination with sitagliptin (or other DPP-4 inhibitors).

CymaBay is seeking a partner to assume further development of the lead chemical series leading to the identification of a clinical candidate in order to establish proof-of-pharmacology in humans.

License Agreements and Intellectual Property

General

CymaBay actively seeks to obtain, where appropriate, patent protection and regulatory exclusivity for the proprietary technology that it considers important to its business, including compounds, compositions and formulations, their methods of use and processes for their manufacture both in the United States and other countries. CymaBay also relies on trade secrets, know-how, continuing technological innovation and in-licensing to develop and maintain its proprietary position. Our success depends in part on our ability to obtain, maintain and enforce proprietary protection for our product candidates, technology and know–how, to operate without infringing the proprietary rights of others, and to exclude others from infringing our proprietary rights. However, patent protection may not afford CymaBay complete protection against competitors who seek to circumvent CymaBay's patents.

CymaBay also depends upon the skills, knowledge, experience and know-how of its management, research and development personnel, as well as that of its advisors, consultants and other contractors. To help protect its proprietary know-how, which is not patentable, and for inventions for which patents may be difficult to enforce, CymaBay currently relies and will in the future rely on trade secret protection and confidentiality agreements to protect its interests. To this end, CymaBay requires all of its employees, consultants, advisors and other contractors to enter into confidentiality agreements that prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to it of the ideas, developments, discoveries and inventions important to its business.

Collaborations and Licensing Agreements

CymaBay has entered into various arrangements with licensors and licensees. The current collaborations are summarized below.

Ortho: In August 2006, CymaBay entered into a strategic alliance with Ortho-McNeil, Inc., a Johnson & Johnson Company. As part of the alliance, Janssen Pharmaceutical NV, an affiliate of Ortho-McNeil, granted to CymaBay an exclusive worldwide, royalty-bearing license to MBX-8025 with the right to grant sublicenses to third parties. Under the agreement Janssen is entitled to receive up to an 8% royalty on sales of MBX-8025. In June 2010, CymaBay entered into two development and license agreements with Ortho-McNeil-Janssen Pharmaceuticals, Inc. to further develop and discover undisclosed metabolic disease target agonists for the treatment of T2DM and other disorders and received a one-time nonrefundable technology access fee related to the agreements. CymaBay is also eligible to receive up to $330 million in contingent payments if certain development and commercial events are achieved as well as royalties on worldwide product sales. No such payments have been made to date.

DiaTex: In June 1998, CymaBay entered into a license agreement with DiaTex, Inc. relating to products containing halofenate, its enantiomers (including arhalofenate), derivatives, and analogs (the licensed products). The license agreement provides that DiaTex and CymaBay are joint owners of all of the patents and patent applications covering the licensed products. As part of the license agreement, CymaBay received an exclusive worldwide license to develop and commercialize the licensed products with the right to grant sublicenses to third parties. The license agreement contains a $2,000 per month license fee as well as a requirement to make additional payments for development achievements and royalty payments on any sales of licensed products. DiaTex is entitled to up to $0.8 million for the future development of arhalofenate, as well as a 2% royalty payment on any sales of products containing arhalofenate. A $50,000 milestone payment was made in May 2005 but no other milestone or royalty payments have been made since then.

Intellectual Property

CymaBay owns a total of 37 United States patents, 124 foreign patents, as well as 17 United States patent applications and 178 foreign and Patent Cooperation Treaty applications which are counterparts to certain United States patents and patent applications. In addition, we license from third parties a total of 3 United States patents and 1 United States patent application, 60 foreign patents and 9 foreign and Patent Cooperation Treaty applications which are counterparts to certain United States patents and patent applications. These patents and patent applications include claims covering various aspects of our product pipeline and research and development strategies, including: arhalofenate crystal forms, methods of use both alone and in combination with other drugs and methods of manufacture, certain PPAR delta agonists, their compositions and uses, certain GPR119 agonist compositions and uses and undisclosed metabolic disease target agonist compositions and uses.

Patent and trade secret protection is critical to our business. Our success will depend in large part on our ability to obtain, maintain, defend and enforce patents and other intellectual property to extend the life of patents covering our product candidates, to preserve trade secrets and proprietary know-how, and to operate without infringing the patents and proprietary rights of third parties we actively seek patent protection in the U.S.

Arhalofenate

The patent portfolio on arhalofenate (MBX-102) includes 13 issued U.S. and 107 foreign patents and 8 pending U.S. and 38 foreign patent applications covering crystal forms of the chemical compound, methods of treating hyperuricemia, methods of treating and preventing flares and other methods of using the compound, and methods of manufacture. Patent term expiration 2019-2028.

MBX-2982

The patent portfolio on MBX-2982 and second generation compounds includes 5 issued U.S. and 5 foreign patents and 6 pending U.S. and 44 foreign patent applications covering chemical compositions, crystal forms of the chemical compound, methods of treating diabetes, methods of treating diabetes in combination with other drugs, formulation and methods of manufacture. Patent term expiration 2027-2031.

MBX-8025

The patent portfolio on MBX-8025 and second generation compounds includes 3 issued U.S. and 60 foreign patents and 2 pending U.S. and 19 foreign patent applications covering chemical compositions, salt forms of the chemical compound and methods of treating dyslipidemia. Patent term expiration 2024-2026.

Manufacturing

CymaBay does not currently own or operate manufacturing facilities for the production or testing of arhalofenate or other product candidates that it develops, nor does it have plans to develop its own manufacturing operations in the foreseeable future. CymaBay presently depends on third party contract manufacturers for all of its required raw materials, Active Pharmaceutical Ingredients (APIs) and finished products for its clinical studies. CymaBay has executed manufacturing agreements for its API and tablet supplies of arhalofenate with established manufacturing firms.

Research & Development Costs

Research and development costs for the years ended December 31, 2012 and 2011 were $9.3 million and $14.4 million, respectively.

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, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of products such as those CymaBay is developing. The pharmaceutical drug product candidates that CymaBay develops must be approved by the Food and Drug Administration (FDA) before they may be legally marketed in the United States.

United States Pharmaceutical Product Development Process

In the United States, the FDA regulates pharmaceutical products under the Federal Food, Drug and Cosmetic Act, and implementing regulations. Pharmaceutical products are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. FDA sanctions could include refusal to approve pending applications, withdrawal of an

approval, a clinical hold, warning letters, product recalls, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on CymaBay. The process required by the FDA before a non-biological pharmaceutical product may be marketed in the United States generally involves the following:

- Completion of preclinical laboratory tests, animal studies and formulation studies according to Good Laboratory Practices (GLP) or other applicable regulations;
- Submission to the FDA of an Investigational New Drug application (IND), which must become effective before human clinical studies may begin;
- Performance of adequate and well-controlled human clinical studies according to the FDA's current Good Clinical Practices (GCP), to establish the safety and efficacy of the proposed pharmaceutical product for its intended use;
- Submission to the FDA of a New Drug Application (NDA) for a new pharmaceutical product;
- Satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the pharmaceutical product is produced to assess compliance with the FDA's current Good Manufacturing Practice standards (cGMP), to assure that the facilities, methods and controls are adequate to preserve the pharmaceutical product's identity, strength, quality and purity;
- Potential FDA audit of the preclinical and clinical study sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA.

The lengthy process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require the expenditure of substantial resources and approvals are inherently uncertain.

Before testing any compounds with potential therapeutic value in humans, the pharmaceutical product candidate enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the pharmaceutical product candidate. These early proof-of-principle studies are done using sound scientific procedures and thorough documentation. The conduct of the single and repeat dose toxicology and toxicokinetic studies in animals must comply with federal regulations and requirements including Good Laboratory Practices. The sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA has concerns and notifies the sponsor. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical study can begin. If resolution cannot be reached within the 30-day review period, either the FDA places the IND on clinical hold or the sponsor withdraws the application. The FDA may also impose clinical holds on a pharmaceutical product candidate at any time before or during clinical studies due to safety concerns or non-compliance. Accordingly, CymaBay cannot be sure that submission of an IND will result in the FDA allowing clinical studies to begin, or that, once begun, issues will not arise that suspend or terminate such clinical study.

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2, and before an NDA is submitted. Meetings at other times may be requested. 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 this type of discussion occurred, a sponsor may be able to request a Special Protocol Assessment, or 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.

According to FDA guidance for industry on the SPA process, a sponsor which meets the prerequisites may make a specific request for a SPA and provide information regarding the design and size of the proposed clinical trial. The FDA is supposed to evaluate the protocol within 45 days of the request to assess whether the proposed trial is adequate, and that evaluation may result in discussions and a request for additional information. A SPA request must be made before the proposed trial begins, and all open issues must be resolved before the trial begins. If a written agreement is reached, it will be documented and made part of the record. The agreement will be binding on the FDA and may not be changed by the sponsor or the FDA after the trial begins except with the written agreement of the sponsor and the FDA or if the FDA determines that a substantial scientific issue essential to determining the safety or efficacy of the drug was identified after the testing began.

Clinical studies involve the administration of the pharmaceutical product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the clinical study sponsor's control. Clinical studies are conducted under protocols detailing, among other things, the objectives of the clinical study, dosing procedures, subject selection and exclusion criteria, how the results will be analyzed and presented and the parameters to be used to monitor subject safety. Each protocol must be submitted to the FDA as part of the IND. Clinical studies must be conducted in accordance with GCP. Further, each clinical study must be reviewed and approved by an independent institutional review board (IRB) at, or servicing, each institution at which the clinical study will be conducted. An IRB is charged with protecting the welfare and rights of study participants and considers such items as whether the risks to individuals participating in the clinical studies are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical study subject or his or her legal representative and must monitor the clinical study until completed.

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

- Phase 1. The pharmaceutical product is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion.
- Phase 2. The pharmaceutical product is evaluated 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, to determine dosage tolerance, optimal dosage and dosing schedule and to identify patient populations with specific characteristics where the pharmaceutical product may be more effective.
- Phase 3. Clinical studies are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These clinical studies are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labeling. The studies must be well-controlled and usually include a control arm for comparison. One or two Phase 3 studies are required by the FDA for an NDA approval, depending on the disease severity and other available treatment options.
- Post-approval studies, or Phase 4 clinical studies, may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication.
- Progress reports detailing the results of the clinical studies must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events or any finding from tests in laboratory animals that suggests a significant risk for human subjects. Phase 1, Phase 2 and Phase 3 clinical studies may not be completed successfully within any specified period, if at all. The FDA or the sponsor or its data safety monitoring board may suspend a clinical study at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical study at its institution if the clinical study is not being conducted in accordance with the IRB's requirements or if the pharmaceutical product has been associated with unexpected serious harm to patients.

Concurrent with clinical studies, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the pharmaceutical product as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the pharmaceutical product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final pharmaceutical product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the pharmaceutical product candidate does not undergo unacceptable deterioration over its shelf life.

United States Review and Approval Processes

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 pharmaceutical product, proposed labeling 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 substantial user fees; a waiver of such fees may be obtained under certain limited circumstances.

In addition, under the Pediatric Research Equity Act (PREA), an NDA or supplement to an NDA must contain data to assess the safety and effectiveness of the pharmaceutical product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does not apply to any pharmaceutical product for an indication for which orphan designation has been granted.

The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act (PDUFA), the FDA has 10 months in which to complete its initial review of a standard NDA and respond to the applicant, and six months for a priority NDA. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs. The review process and the PDUFA goal date may be extended by three months if the FDA requests or if the NDA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

After the NDA submission is accepted for filing, the FDA reviews the NDA application to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, strength, quality and purity. The FDA may refer applications for novel pharmaceutical products or pharmaceutical products which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the pharmaceutical product approval process, the FDA also will determine whether a risk evaluation and mitigation strategy (REMS) is necessary to assure the safe use of the pharmaceutical product. If the FDA concludes that a REMS is needed, the sponsor of the NDA must submit a proposed REMS; the FDA will not approve the NDA without a REMS, if required.

Before approving an NDA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical sites as well as the site where the pharmaceutical product is manufactured to assure compliance with GCP and cGMP. If the FDA determines the application, manufacturing process or manufacturing facilities are not acceptable, it will outline the deficiencies in the submission and often will request additional testing or information. In addition, the FDA will require the review and approval of product labeling.

The NDA review and approval process is lengthy and difficult and the FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical data or other data and information. Even if such data and information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical studies are not always conclusive and the FDA may interpret data differently than CymaBay interprets the same data. The FDA will issue a complete response letter if the agency decides not to approve the NDA. The complete response letter usually describes all of the specific deficiencies in the NDA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical studies. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application.

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 value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. In addition, the FDA may require Phase 4 testing which involves clinical studies designed to further assess pharmaceutical product safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized.

Expedited Development and Review Programs

The FDA has a Fast Track program that is intended to expedite or facilitate the process for reviewing new pharmaceutical products that meet certain criteria. Specifically, new pharmaceutical products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. Unique to a Fast Track product, the FDA may consider for review sections of the NDA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, if the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable and if the sponsor pays any required user fees upon submission of the first section of the NDA.

Any product submitted to the FDA for market, including a Fast Track program, may also be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. Any product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new pharmaceutical product designated for priority review in an effort to facilitate the review. Additionally, a product may be eligible for accelerated approval. Pharmaceutical products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval, which means that the products may be approved on the basis of adequate and well-controlled clinical studies establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict a 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 pharmaceutical product receiving accelerated approval perform adequate and well-controlled post-marketing clinical studies. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

Post-Approval Requirements

Any pharmaceutical products for which CymaBay receives FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse

experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements and complying with FDA promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, prohibitions on promoting pharmaceutical products for uses or in patient populations that are not described in the pharmaceutical product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities and promotional activities involving the internet. Failure to comply with FDA requirements can have negative consequences, including adverse publicity, enforcement letters from the FDA, actions by the United States Department of Justice and/or United States Department of Health and Human Services Office of Inspector General, mandated corrective advertising or communications with doctors, and civil or criminal penalties. Although physicians may prescribe legally available pharmaceutical products for off-label uses, manufacturers may not directly or indirectly market or promote such off-label uses.

CymaBay relies, and expects to continue to rely, on third parties for the production of clinical and commercial quantities of CymaBay's products. Manufacturers of CymaBay's products are required to comply with applicable FDA manufacturing requirements contained in the FDA's cGMP regulations. cGMP regulations require, among other things, quality control and quality assurance, as well as the corresponding maintenance of records and documentation. Pharmaceutical product manufacturers and other entities involved in the manufacture and distribution of approved pharmaceutical products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer or holder of an approved NDA, including withdrawal of the product from the market. In addition, changes to the manufacturing process generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

The FDA also may require post-marketing testing, known as Phase 4 testing, risk minimization action plans and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product.

U.S. Foreign Corrupt Practices Act

The U.S. Foreign Corrupt Practices Act, or FCPA, prohibits certain individuals and entities, including CymaBay, from promising, paying, offering to pay, or authorizing the payment of anything of value to any foreign government official, directly or indirectly, to obtain or retain business or an improper advantage. The U.S. Department of Justice and the U.S. Securities and Exchange Commission, or SEC, have increased their enforcement efforts with respect to the FCPA. Violations of the FCPA may result in large civil and criminal penalties and could result in an adverse effect on a company's reputation, operations, and financial condition. A company may also face collateral consequences such as debarment and the loss of export privileges.

Federal and state fraud and abuse laws

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain business practices in the biopharmaceutical industry in recent years. These laws include anti-kickback statutes and false claims statutes. The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting, or receiving remuneration to induce or in return for purchasing, leasing, ordering, or arranging for the purchase, lease, or order of any healthcare item or service reimbursable under Medicare, Medicaid, or other federally financed healthcare programs. The term "remuneration" has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payment, ownership interests and providing anything at less than its fair market value. The Anti-

Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and CymaBay's practices may not in all cases meet all of the criteria for statutory exemptions or safe harbor protection. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. The reach of the Anti-Kickback Statute was also broadened by the Patient Protection and Affordable Health Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the PPACA, which, among other things, amends the intent requirement of the federal Anti-Kickback Statute. Pursuant to the statutory amendment, a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act (discussed below) or the civil monetary penalties statute, which imposes penalties against any person who is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

The federal False Claims Act prohibits any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies' marketing of the product for unapproved, and thus non-reimbursable, uses. Many states also have statutes or regulations similar to the federal Anti-Kickback Statute and False Claims Act, which state laws apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. Also, the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payers and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Because of the breadth of these laws and the narrowness of the federal Anti-Kickback Statute's safe harbors, it is possible that some of our business activities could be subject to challenge under one or more of such laws. Such a challenge could have a material adverse effect on our business, financial condition and results of operations. If CymaBay obtains FDA approval for any of our product candidates and begin commercializing those products in the United States, CymaBay's operations may be directly, or indirectly through our customers, distributors, or other business partners, subject to various federal and state fraud and abuse laws, including, without limitation, anti-kickback statutes and false claims statutes. These laws may impact, among other things, our proposed sales, marketing and education programs. In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and its implementing regulations, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates"—independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

If CymaBay's operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to CymaBay, CymaBay may be subject to penalties, including criminal and significant civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government healthcare programs, and the curtailment or restructuring of CymaBay's operations, any of which could adversely affect CymaBay's ability to operate its business and CymaBay's results of operations. To the extent that any of CymaBay's product candidates are ultimately sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

In the United States and foreign jurisdictions, there have been a number of legislative and regulatory changes to the healthcare system that could affect our future results of operations. In particular, there have been and continue to be a number of initiatives at the United States federal and state levels that seek to reduce healthcare costs. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, imposed new 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 CymaBay's products for which CymaBay receives marketing approval. However, any negotiated prices for CymaBay's products covered by a Part D prescription drug plan will likely be lower than the prices CymaBay 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 Medicare Part D may result in a similar reduction in payments from non-governmental payors.

The American Recovery and Reinvestment Act of 2009 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 coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of any product, if any such product or the condition that it is intended to treat is the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits in a competitor's product could adversely affect the sales of our product candidates. If third-party payors do not consider CymaBay's products to be cost-effective compared to other available therapies, they may not cover our products as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow CymaBay to sell its products on a profitable basis.

In March 2010 the PPACA was enacted, which includes measures to significantly change the way healthcare is financed by both governmental and private insurers. Among the provisions of the PPACA of importance to the pharmaceutical and biotechnology industry are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs, that began in 2011;
- an increase in the rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for branded and generic drugs, respectively;

- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts to negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level beginning in 2014, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements under the federal Open Payments program, created under Section 6002 of the PPACA and its implementing regulations, that manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report annually to the U.S. Department of Health and Human Services, or HHS, information related to "payments or other transfers of value" made or distributed to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and that applicable manufacturers and applicable group purchasing organizations report annually to HHS ownership and investment interests held by physicians (as defined above) and their immediate family members, with data collection required beginning August 1, 2013 and reporting to the Centers for Medicare & Medicaid Services, or CMS, required by March 31, 2014 and by the 90th day of each subsequent calendar year;
- a requirement to annually report drug samples that manufacturers and distributors provide to physicians, effective April 1, 2012;
- expansion of health care fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a licensure framework for follow-on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- creation of the Independent Payment Advisory Board which, beginning in 2014, will have authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs and those recommendations could have the effect of law even if Congress does not act on the recommendations; and
- establishment of a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending that began on January 1, 2011.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. In August 2011, the president signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction, or joint committee, to recommend proposals in spending reductions to Congress. The joint committee did not achieve its targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, triggering automatic reductions to several government programs. These reductions include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. In January 2013, the president signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our financial operations.

Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of the use of CymaBay's pharmaceutical product candidates, some of CymaBay's products to be licensed under United States patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permits 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 pharmaceutical product is eligible for the extension and the application for the extension must be submitted prior to the 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, CymaBay may intend to apply for restoration of patent term for one of its currently owned or licensed patents to add patent life beyond its current expiration date, depending upon the expected length of the clinical studies and other factors involved in the filing of the relevant NDA.

Market exclusivity provisions under the U.S. Food, Drug, and Cosmetic Act can also delay the submission or the approval of certain applications of other companies seeking to reference another company's NDA. Currently seven years of reference product exclusivity are available to pharmaceutical products designated as Orphan Drugs, during which the FDA may not approve generic products relying upon the reference product's data. Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric clinical study in accordance with an FDA-issued "Written Request" for such a clinical study.

Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical product candidates for which CymaBay obtains regulatory approval. In the United States and markets in other countries, sales of any products for which CymaBay receives regulatory approval for commercial sale will depend in part upon the availability of reimbursement from third-party payors. Third-party payors include government payors such as Medicare and Medicaid, managed care providers, private health insurers and other organizations. The process for determining whether a payor will provide coverage for a pharmaceutical product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the pharmaceutical product. Third-party payors may limit coverage to specific pharmaceutical products on an approved list, or formulary, which might not include all of the FDA-approved pharmaceutical products for a particular indication. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. CymaBay may need to conduct expensive pharmaco-economic studies in order to demonstrate the medical necessity and cost-effectiveness of its products, in addition to the costs required to obtain the FDA approvals. CymaBay's pharmaceutical product candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a pharmaceutical product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable CymaBay to maintain price levels sufficient to realize an appropriate return on CymaBay's investment in product development. In addition, in the United States there is a growing emphasis on comparative effectiveness research, both by private payors and by government agencies. To the extent other drugs or therapies are found to be more effective than CymaBay's products, payors may elect to cover such therapies in lieu of CymaBay's products and/or reimburse CymaBay's products at a lower rate.

In 2003, the United States government enacted legislation providing a partial prescription drug benefit for Medicare recipients, which became effective at the beginning of 2006. Government payment for some of the costs

of prescription drugs may increase demand for any products for which CymaBay receives marketing approval. However, to obtain payments under this program, CymaBay would be required to sell products to Medicare recipients through prescription drug plans operating pursuant to this legislation. As part of their participation in the Medicare prescription drug program, these plans negotiate discounted prices for prescription drugs and will likely do so for CymaBay's products. Federal, state and local governments in the United States continue to consider legislation to limit the growth of health care costs, including the cost of prescription drugs. Future legislation and regulations could limit payments for pharmaceuticals such as the drug candidates that CymaBay is developing.

Different pricing and reimbursement schemes exist in other countries. In the European Community, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national health care systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed upon. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical studies that compare the cost-effectiveness of a particular pharmaceutical product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on health care costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The marketability of any pharmaceutical product candidates for which CymaBay receives regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and CymaBay expects this will continue to increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which CymaBay receives regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

International Regulation

In addition to regulations in the United States, there are a variety of foreign regulations governing clinical studies and commercial sales and distribution of CymaBay's future product candidates. Whether or not FDA approval is obtained for a product, approval of a product must be obtained by the comparable regulatory authorities of foreign countries before clinical studies or marketing of the product can commence 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 studies, product licensing, pricing and reimbursement vary greatly from country to country. In addition, certain regulatory authorities in select countries may require CymaBay to repeat previously conducted preclinical and/or clinical studies under specific criteria for approval in their respective country which may delay and/or greatly increase the cost of approval in certain markets targeted for approval by CymaBay.

Under European Union regulatory systems, marketing applications for pharmaceutical products must be submitted under a centralized procedure to the European Medicines Agency ("EMA"). The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The EMA also has designations for Orphan Drugs which, if applicable, can provide for faster review, lower fees and more access to advice during drug development. While the marketing authorization in the European Union is centralized, the system for clinical studies (application, review and requirements) is handled by each individual country. Approval to run a clinical study in one country does not guarantee approval in any other country.

The pharmaceutical industry in Canada is regulated by Health Canada. A New Drug Submission (NOS) is the equivalent of a United States NDA and must be filed to obtain approval to market a pharmaceutical product in Canada. Marketing regulations and reimbursement are subject to national and provincial laws.

In Japan, applications for approval to manufacture and market new drugs must be approved by the Ministry of Health, Labor and Welfare. Nonclinical and clinical studies must meet the requirements of Japanese laws. Results from clinical studies conducted outside of Japan must be supplemented with at least a bridging clinical study conducted in Japan.

In addition to regulations in Europe, Canada, Japan and the United States, there are a variety of foreign regulations governing clinical studies, commercial distribution and reimbursement of future product candidates which CymaBay may be subject to as it pursues regulatory approval and commercialization of arhalofenate or any future product candidates internationally.

Corporate Information

CymaBay Therapeutics, Inc., formerly Metabolex, Inc., was incorporated under the laws of the State of Delaware on October 5, 1988, originally under the name Transtech Corporation. Our executive offices are located at 3876 Bay Center Place, Hayward, California 94545. The telephone number at our executive office is (510) 293-8800. Our corporate website address is www.cymabay.com. We do not incorporate the information contained on, or accessible through, our website into this Form 10, and you should not consider it part of this Form 10.

Employees

As of August 1, 2013, CymaBay has twelve full-time employees, seven of whom hold Ph.D.s and one of whom holds a Masters degree in relevant areas of expertise, and three consultants.

ITEM 1A. RISK FACTORS.

An investment in our common stock involves a high degree of risk. A prospective investor should carefully consider the following information about these risks, together with the other information appearing elsewhere in this Form 10, before deciding to invest in our common stock. The occurrence of any of the following risks could have a material adverse effect on CymaBay's business, financial condition, results of operations and future prospects. In these circumstances, the value of our common stock could decline, and the investor may lose all or part of the money paid to acquire our common stock.

Risks Related to Our Financial Condition and Capital Requirements

If we fail to obtain additional financing, we could be forced to delay, reduce or eliminate our product development programs, seek corporate partners for the development of our product development programs or relinquish or license on unfavorable terms, our rights to technologies or product candidates.

As of March 31, 2013, we had net cash on hand of approximately $5.6 million. CymaBay believes that its cash on hand will sustain its operations through September 2013. Our monthly spending levels vary based on new and ongoing development and corporate activities. As a result, CymaBay will need additional capital to continue its operations beyond September 2013. There is substantial doubt about CymaBay's ability to continue as a going concern without additional financing.

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is a time-consuming, expensive and uncertain process that takes years to complete. We expect our research and development expenses to substantially increase in connection with our ongoing activities, particularly as we advance development of our lead clinical product candidate, arhalofenate, for the prevention of gout flares and the treatment of hyperuricemia in patients with gout.

In the event CymaBay does not successfully raise sufficient funds in financing(s), its product development activities, particularly related to the development of arhalofenate, will necessarily be curtailed commensurate with the magnitude of the shortfall or may cease altogether. To the extent that the costs of the planned Phase 2b study of arhalofenate in patients with gout exceed current estimates and CymaBay is unable to raise sufficient additional capital to cover such additional costs, CymaBay will need to reduce operating expenses, enter into a collaboration or other similar arrangement with respect to development and/or commercialization rights to arhalofenate, outlicense intellectual property rights to arhalofenate, sell assets or effect a combination of the above. No assurance can be given that CymaBay will be able to effect any of such transactions on acceptable terms, if at all. Failure to progress the development of arhalofenate will have a negative effect on CymaBay's business, future prospects and ability to obtain further financing on acceptable terms (if at all).

Beyond the plan of operations outlined above, CymaBay's future funding requirements and sources will depend on many factors, including but not limited to the following:

- the rate of progress and cost of its clinical studies, including in particular the Phase 3 studies of arhalofenate;
- the need for additional or expanded clinical studies;
- the rate of progress and cost of its Chemistry, Manufacturing and Control registration and validation program;
- the timing, economic and other terms of any licensing, collaboration or other similar arrangement into which CymaBay may enter;
- the costs and timing of seeking and obtaining FDA and other regulatory approvals;
- the extent of CymaBay's other development activities;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; and

- the effect of competing products and market developments.

If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we will be prevented from pursuing development and commercialization efforts, which will have a material adverse effect on our business, operating results and prospects and on our ability to develop our product candidates.

We have incurred significant losses since our inception. We anticipate that we will continue to incur significant losses for the foreseeable future, and we may never achieve or maintain profitability.

We are a biopharmaceutical company focused primarily on developing our lead product candidate, arhalofenate. We have incurred significant net losses in each year since our inception, including net losses of approximately $11.3 million and $4.5 million for the fiscal years ended 2012 and 2011, respectively. As of December 31, 2012, we had an accumulated deficit of $329.5 million.

To date, we have financed our operations primarily through the sale of equity securities, licensing fees and debt. We have devoted most of our financial resources to research and development, including our preclinical development activities and clinical trials. We have not completed development of any product candidates. We expect to continue to incur significant and increasing losses and negative cash flows for the foreseeable future. The size of our losses will depend, in part, on the rate of future expenditures and our ability to generate revenues. In particular, we expect to incur substantial and increased expenses as we:

- continue the development of our lead product candidate, arhalofenate, for the prevention of flares and treatment of hyperuricemia in patients with gout;
- seek to obtain regulatory approvals for arhalofenate;
- prepare for the potential commercialization of arhalofenate;
- scale up manufacturing capabilities to commercialize arhalofenate for any indications for which we receive regulatory approval;
- begin outsourcing of the commercial manufacturing of arhalofenate for any indications for which we receive regulatory approval;
- establish an infrastructure for the sales, marketing and distribution of arhalofenate for any indications for which we receive regulatory approval;
- expand our research and development activities and advance our clinical programs;
- maintain, expand and protect our intellectual property portfolio;
- continue our research and development efforts and seek to discover additional product candidates; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and commercialization efforts and operations as a public company.

CymaBay does not anticipate that it will generate revenue from the sale of products for the foreseeable future. CymaBay's ability to become profitable depends upon its ability to generate significant continuing revenues.

In the absence of additional sources of capital, which may not be available to CymaBay on acceptable terms, or at all, the development of arhalofenate or future product candidates may be reduced in scope, delayed or terminated. If CymaBay's product candidates or those of its collaborators fail in clinical studies or do not gain regulatory approval, or if its future products, if any, do not achieve market acceptance, CymaBay may never become profitable.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations.

Our ability to generate future revenues from product sales is uncertain and depends upon our ability to successfully develop, obtain regulatory approval for, and commercialize our product candidates.

Our ability to generate revenue and achieve profitability depends on our ability, alone or with collaborators, to successfully complete the development, obtain the necessary regulatory approvals and commercialize our product candidates. We do not anticipate generating revenues from sales of our product candidates for the foreseeable future, if ever. Our ability to generate future revenues from product sales depends heavily on our success in:

- obtaining favorable results for and advancing the development of arhalofenate, including successfully initiating and completing our Phase 2b and Phase 3 clinical development;
- obtaining United States (U.S.) and foreign regulatory approvals for arhalofenate;
- launching and commercializing arhalofenate, either on our own or with a partner, including building a sales force and collaborating with third parties;
- achieving broad market acceptance of arhalofenate in the medical community and by third-party payors and patients; and
- generating a pipeline of product candidates.

Conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data required to obtain regulatory approval and achieve product sales. Our anticipated development costs would likely increase if we do not obtain favorable results or if development of our product candidates is delayed. In particular, we would likely incur higher costs than we currently anticipate if development of our product candidates is delayed because we are required by the U.S. FDA to perform studies or trials in addition to those that we currently anticipate. Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to predict the timing or amount of any increase in our anticipated development costs.

In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for several years, if at all. Even if one or more of our product candidates is approved for commercial sale, we anticipate incurring significant costs in connection with commercialization. As a result, we cannot assure you that we will be able to generate revenues from sales of any approved product candidates, or that we will achieve or maintain profitability even if we do generate sales.

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

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. We do not have any committed external source of funds.

In order to raise additional funds to support our operations, we may sell additional equity or debt securities, enter into collaborations, strategic alliances, or licensing arrangements or other marketing or distribution arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a stockholder. 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, and declaring dividends, and will impose limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business.

If we raise additional funds through collaborations, strategic alliances, or licensing arrangements or other marketing or distribution arrangements with third parties, we may have to relinquish valuable rights to our

technologies, future revenue streams, research programs or product candidates, or grant licenses on terms that may not be favorable to us. If we are unable to expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected and we may not be able to meet our debt service obligations. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts, or grant others rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

We are an emerging growth company and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company. Under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We plan to avail ourselves of this exemption from new or revised accounting standards and, therefore, we may not be subject to the same new or revised accounting standards as other public companies that are not "emerging growth companies."

For as long as we continue to be an emerging growth company, we also intend to take advantage of certain other exemptions from various reporting requirements that are applicable to other public companies including, but not limited to, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory stockholder vote on executive compensation and any golden parachute payments not previously approved, exemption from the requirement of auditor attestation in the assessment of our internal control over financial reporting and exemption from any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements (auditor discussion and analysis). If we do, the information that we provide stockholders may be different than what is available with respect to other public companies. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If investors find our common stock less attractive as a result of our status as an emerging growth company, there may be less liquidity for our common stock and our stock price may be more volatile.

We will remain an emerging growth company until the earliest of (i) the end of the fiscal year in which the market value of our common stock that is held by non-affiliates exceeds $700 million as of the end of the second fiscal quarter, (ii) the end of the fiscal year in which we have total annual gross revenues of $1 billion or more during such fiscal year, (iii) the date on which we issue more than $1 billion in non-convertible debt in a three-year period or (iv) the end of the fiscal year following the fifth anniversary of the date of the first sale of our common stock pursuant to an effective registration statement filed under the Securities Act.

Risks Related to Clinical Development and Regulatory Approval

We depend on the success of our lead product candidate, arhalofenate, which is still under clinical development, and may not obtain regulatory approval or be successfully commercialized.

We have not marketed, distributed or sold any products. The success of our business depends upon our ability to develop and commercialize our lead product candidate, arhalofenate, which has completed seven Phase 1 and seven Phase 2 clinical trials, including three Phase 2 studies in gout. We plan to conduct a Phase 2b clinical trial for arhalofenate in preventing flares and reducing serum uric acid in gout patients prior to initiation of a Phase 3 program. There is no guarantee that our clinical trials will be completed or, if completed, will be successful. The success of arhalofenate will depend on several factors, including the following:

- successful enrollment and completion of clinical trials;
- receipt of marketing approvals from the FDA and regulatory authorities outside the U.S. for our product candidate;
- establishing commercial manufacturing capabilities by making arrangements with third-party manufacturers;

- launching commercial sales of the product, whether alone or in collaboration with others;
- acceptance of the product by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- a continued acceptable safety profile of the product following approval; and
- obtaining, maintaining, enforcing and defending intellectual property rights and claims.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize arhalofenate, which would materially harm our business.

We have never obtained regulatory approval for a drug and we may be unable to obtain, or may be delayed in obtaining, regulatory approval for arhalofenate.

We have never obtained regulatory approval for a drug. In the U.S. it is possible that the FDA may refuse to accept our New Drug Application (NDA) for substantive review or may conclude after review of our data that our application is insufficient to obtain regulatory approval of arhalofenate. If the FDA does not accept or approve our NDA, it may require that we conduct additional clinical, nonclinical or manufacturing validation studies and submit that data before it will reconsider our application. Depending on the extent of these or any other FDA required studies, approval of any NDA or application that we submit may be delayed by several years, or may require us to expend more resources than we have available. It is also possible that additional studies, if performed and completed, may not be considered sufficient by the FDA to approve our NDA.

Any delay in obtaining, or an inability to obtain, regulatory approvals would prevent us from commercializing arhalofenate, generating revenues and achieving and sustaining profitability. If any of these outcomes occur, we may be forced to abandon our development efforts for arhalofenate, which would have a material adverse effect on our business and could potentially cause us to cease operations.

We depend on the successful completion of clinical trials for our product candidates, including arhalofenate. The positive clinical results obtained for our product candidates in prior clinical studies may not be repeated in future clinical studies.

Before obtaining regulatory approval for the sale of our product candidates, including arhalofenate, we must conduct additional clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more of our clinical trials can occur at any stage of testing. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for their products.

We have completed three Phase 2 clinical studies of arhalofenate in gout. In addition, six clinical studies with MBX-8025 and five clinical studies with MBX-2982 have been completed. However, we have never conducted a Phase 3 clinical trial. The positive results we have seen to date in our Phase 2 clinical trials of arhalofenate for gout do not ensure that later clinical trials will demonstrate similar results. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy characteristics despite having progressed satisfactorily through preclinical studies and initial clinical testing. A number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience, have suffered significant setbacks in Phase 3 clinical development, even after seeing promising results in earlier clinical trials.

We may experience a number of unforeseen events during clinical trials for our product candidates, including arhalofenate, that could delay or prevent the commencement and/or completion of our clinical trials, including the following:

- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- the clinical study protocol may require one or more amendments delaying study completion;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of subjects required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be insufficient or slower than we anticipate or subjects may drop out of these clinical trials at a higher rate than we anticipate;
- clinical investigators or study subjects fail to comply with clinical study protocols;
- trial conduct and data analysis errors may occur, including, but not limited to, data entry and/or labeling errors;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we might have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the subjects are being exposed to unacceptable health risks;
- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our clinical trial materials or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators to suspend or terminate the trials.

Negative or inconclusive results of our future clinical trials of arhalofenate, or any other clinical trial we conduct, could cause the FDA to require that we repeat or conduct additional clinical studies. Despite the results reported in earlier clinical trials for arhalofenate, we do not know whether any clinical trials we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market our product candidates, including arhalofenate. If later stage clinical trials do not produce favorable results, our ability to obtain regulatory approval for our product candidates, including arhalofenate, may be adversely impacted.

We have never conducted a clinical trial of arhalofenate as a monotherapy for the treatment of gout flares. If arhalofenate does not demonstrate efficacy in the treatment of such flares in our planned Phase 2b clinical trial, our ability to successfully commercialize arhalofenate may be adversely affected.

We have not previously conducted a clinical trial of arhalofenate for the purpose of measuring its effect on flare reduction and control without the use of colchicine. We plan to conduct a Phase 2b clinical trial to investigate the potential benefit of arhalofenate monotherapy with regard to flare prevention and serum uric acid (sUA) lowering. In addition, our Phase 2b study will investigate the benefits of two doses of arhalofenate monotherapy, including a higher dose than we studied in previous gout studies, without colchicine. If we do not obtain favorable efficacy and safety results in the Phase 2b trial, our ability to successfully market arhalofenate could be adversely affected.

Delays in clinical trials are common and have many causes, and any delay could result in increased costs to us and jeopardize or delay our ability to obtain regulatory approval and commence product sales.

Clinical testing is expensive, difficult to design and implement, can take many years to complete, and is uncertain as to outcome. We may experience delays in clinical trials at any stage of development and testing of our product candidates. Our planned clinical trials may not begin on time, have an effective design, enroll a sufficient number of subjects, or be completed on schedule, if at all.

Events which may result in delays or unsuccessful completion of clinical trials, including our future clinical trials for arhalofenate, include the following:

- inability to raise funding necessary to initiate or continue a trial;
- delays in obtaining regulatory approval to commence a trial;
- delays in reaching agreement with the FDA on final trial design;
- imposition of a clinical hold following an inspection of our clinical trial operations or trial sites by the FDA or other regulatory authorities;
- delays in reaching agreement on acceptable terms with prospective contract research organizations (CROs) and clinical trial sites;
- delays in obtaining required institutional review board (IRB) approval at each site;
- delays in recruiting suitable patients to participate in a trial;
- delays in having subjects complete participation in a trial or return for post-treatment follow-up;
- delays caused by subjects dropping out of a trial due to side effects or otherwise;
- delays caused by clinical sites dropping out of a trial;
- time required to add new clinical sites; and
- delays by our contract manufacturers to produce and deliver sufficient supply of clinical trial materials.

If initiation or completion of any of our clinical trials for our product candidates, including arhalofenate, are delayed for any of the above reasons, our development costs may increase, the approval process could be delayed, any periods during which we may have the exclusive right to commercialize our product candidates may be reduced and our competitors may bring products to market before us. Any of these events could impair our ability to generate revenues from product sales and impair our ability to generate regulatory and commercialization milestones and royalties, all of which could have a material adverse effect on our business.

Our product candidates may cause adverse effects or have other properties that could delay or prevent their regulatory approval or limit the scope of any approved label or market acceptance.

Adverse events (AEs) caused by our product candidates could cause us, other reviewing entities, clinical study sites or regulatory authorities to interrupt, delay or halt clinical studies and could result in the denial of regulatory approval. There is also a risk that our other product candidates may induce AEs, many of which may be unknown at this time. If an unacceptable frequency and/or severity of AEs are reported in our clinical trials for our product candidates, our ability to obtain regulatory approval for product candidates, including arhalofenate, may be negatively impacted.

Furthermore, if any of our approved products cause serious or unexpected side effects after receiving market approval, a number of potentially significant negative consequences could result, including the following:

- regulatory authorities may withdraw their approval of the product or impose restrictions on its distribution in a form of a modified risk evaluation and mitigation strategy;

- regulatory authorities may require the addition of labeling statements, such as warnings or contraindications that could diminish the usage of the product or otherwise limit the commercial success of the affected product;
- we may be required to change the way the product is administered or to conduct additional clinical studies;
- we may choose to discontinue sale of the product;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product candidate and could substantially increase the costs of commercializing our product candidates.

If any product candidate that CymaBay successfully develops does not achieve broad market acceptance among physicians, patients, health care payors and the medical community, the revenues that it generates from its sales will be limited.

Even if arhalofenate or any other product candidates receive regulatory approval, the products may not gain market acceptance among physicians, patients, health care payors and the medical community. Coverage and reimbursement of CymaBay's product candidates by third-party payors, including government payors, generally is also necessary for commercial success. The degree of market acceptance of any of CymaBay's approved products will depend upon a number of factors, including:

- the efficacy and safety, as demonstrated in clinical studies;
- the risk/benefit profile of CymaBay's products such as arhalofenate;
- the prevalence and severity of any side effects;
- the clinical indications for which the product is approved;
- acceptance of the product by physicians, other health care providers and patients as a safe and effective treatment;
- the potential and perceived advantages of product candidates over alternative treatments;
- the safety of product candidates seen in a broader patient group, including its use outside the approved indications;
- the cost of treatment in relation to alternative treatments;
- the timing of market introduction of competitive products;
- the availability of adequate reimbursement and pricing by third parties and government authorities;
- relative convenience and ease of administration; and
- the effectiveness of CymaBay's or its partners' sales, marketing and distribution efforts.

If any product candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, health care payors and patients, CymaBay may not generate sufficient revenue from these products and CymaBay may not become or remain profitable.

Potential conflicts of interest arising from relationships and any related compensation with respect to clinical studies could adversely affect the process.

Principal investigators for CymaBay's clinical studies may serve as scientific advisors or consultants to CymaBay from time to time and receive cash compensation in connection with such services. If these

relationships and any related compensation result in perceived or actual conflicts of interest, the integrity of the data generated at the applicable clinical study site may be questioned or jeopardized.

CymaBay may be subject to costly claims related to its clinical studies and may not be able to obtain adequate insurance.

Because CymaBay conducts clinical studies in humans, CymaBay faces the risk that the use of arhalofenate or future product candidates, will result in adverse side effects. CymaBay cannot predict the possible harms or side effects that may result from its clinical studies. Although CymaBay has clinical study liability insurance, CymaBay's insurance may be insufficient to cover any such events. There is also a risk that CymaBay may not be able to continue to obtain clinical study coverage on acceptable terms. In addition, CymaBay may not have sufficient resources to pay for any liabilities resulting from a claim excluded from, or beyond the limit of, CymaBay's insurance coverage. There is also a risk that third parties that CymaBay has agreed to indemnify could incur liability. Any litigation arising from its clinical studies, even if CymaBay is ultimately successful, would consume substantial amounts of CymaBay's financial and managerial resources and may create adverse publicity.

After the completion of our clinical trials, we cannot predict whether or when we will obtain regulatory approval to commercialize arhalofenate and we cannot, therefore, predict the timing of any future revenue from arhalofenate. Regulatory approval of an NDA is not guaranteed, and the approval process is expensive, uncertain and lengthy.

We cannot commercialize our product candidates, including arhalofenate until the appropriate regulatory authorities, such as the FDA, have reviewed and approved the product candidate. The regulatory agencies may not complete their review processes in a timely manner, or we may not be able to obtain regulatory approval for arhalofenate. Additional delays may result if arhalofenate is brought before an FDA advisory committee, which could recommend restrictions on approval or recommend non-approval of the product candidate. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory agency policy during the period of product development, clinical studies and the review process. As a result, we cannot predict when, if at all, we will receive any future revenue from commercialization of any of our product candidates, including arhalofenate. The FDA has substantial discretion in the drug approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons, including the following:

- CymaBay may be unable to demonstrate to the satisfaction of regulatory authorities that a product candidate is safe and effective for any indication;
- regulatory authorities may not find the data from nonclinical studies and clinical studies sufficient or may differ in the interpretation of the data;
- regulatory authorities may require additional nonclinical or clinical studies;
- the FDA or foreign regulatory authority might not approve CymaBay's third party manufacturers' processes or facilities for clinical or commercial product;
- the FDA or foreign regulatory authority may change its approval policies or adopt new regulations;
- the FDA or foreign regulatory authorities may disagree with the design or implementation of CymaBay's clinical studies;
- the FDA or foreign regulatory authority may not accept clinical data from studies that are conducted in countries where the standard of care is potentially different from that in the U.S.;
- the results of clinical studies may not meet the level of statistical significance required by the FDA or foreign regulatory authorities for approval;
- CymaBay may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks; and

- the data collection from clinical studies of CymaBay's product candidates may not be sufficient to support the submission of a NDA or other submission or to obtain regulatory approval in the U.S. or elsewhere.

In addition, events raising questions about the safety of certain marketed pharmaceuticals may result in increased caution by the FDA and other regulatory authorities in reviewing new pharmaceuticals based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals.

Even if we obtain regulatory approval for arhalofenate and our other product candidates, we will still face extensive regulatory requirements and our products may face future development and regulatory difficulties.

Even if we obtain regulatory approval in the U.S., the FDA may still impose significant restrictions on the indicated uses or marketing of our product candidates, including arhalofenate, or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance. For example, the labeling ultimately approved for our product candidates, including arhalofenate, may include restrictions on use due to the specific patient population and manner of use in which the drug was evaluated and the safety and efficacy data obtained in those evaluations.

Arhalofenate and our other product candidates will also be subject to additional ongoing FDA requirements governing the labeling, packaging, storage, distribution, safety surveillance, advertising, promotion, record-keeping and reporting of safety and other post-market information. The holder of an approved NDA is obligated to monitor and report AEs and any failure of a product to meet the specifications in the NDA. The holder of an approved NDA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws. Furthermore, promotional materials must be approved by the FDA prior to use for any drug receiving accelerated approval, the pathway we are pursuing for arhalofenate in the U.S.

In addition, manufacturers of drug products and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current Good Manufacturing Practices (cGMP), and adherence to commitments made in the NDA. If we, or a regulatory agency, discover previously unknown problems with a product, such as quality issues or AEs of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions relative to that product or the manufacturing facility, including requiring recall or withdrawal of the product from the market or suspension of manufacturing.

If we, or our third party contractors, fail to comply with applicable regulatory requirements following approval of our product candidate, a regulatory agency may:

- issue an untitled or warning letter asserting violation of the law;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending NDA or supplements to an NDA; or
- recall and/or seize product.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize arhalofenate and our other product candidates and inhibit our ability to generate revenues.

Even if we obtain FDA approval for arhalofenate or any of our other products in the U.S., we may never obtain approval for or commercialize arhalofenate or any of our other products outside of the U.S., which would limit our ability to realize their full market potential.

In order to market any products outside of the U.S., we must establish and comply with numerous and varying regulatory requirements on a country-by-country basis regarding safety and efficacy. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions. In addition, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not guarantee regulatory approval in any other country. Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and costs for us and require additional preclinical studies or clinical trials which could be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. We do not have any product candidates approved for sale in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, our target market will be reduced and our ability to realize the full market potential of our products will be unrealized.

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

Health care providers, physicians and others play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other health care laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval. Restrictions under applicable federal and state health care laws and regulations, include the following:

- the federal health care anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal health care programs such as Medicare and Medicaid;
- the federal False Claims Act imposes criminal and civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any health care benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for health care benefits, items or services;
- the federal transparency requirements under the Health Care and Education Reconciliation Act of 2010 (Health Care Reform Law) require manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests; and
- analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving health care items or services reimbursed by non-

governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

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

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.

In the U.S. and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the health care system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any products for which we obtain marketing approval.

In the U.S., the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Medicare Modernization Act) changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products. While the Medicare Modernization Act applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the Medicare Modernization Act may result in a similar reduction in payments from private payors.

More recently, in March 2010, the Health Care Reform Law was enacted to broaden access to health insurance, reduce or constrain the growth of health care spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The Health Care Reform Law revises the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states. Further, the new law imposes a significant annual fee on companies that manufacture or import branded prescription drug products. New provisions affecting compliance have also been enacted, which may affect our business practices with health care practitioners. We will not know the full effects of the Health Care Reform Law until applicable federal and state agencies issue regulations or guidance under the new law. Although it is too early to determine the effect of the Health Care Reform Law, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We are not sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be.

Risks Related to Our Reliance on Third Parties

We rely on third-party manufacturers to produce our preclinical and clinical drug supplies, and we intend to rely on third parties to produce commercial supplies of any approved product candidates.

We do not own or operate, and we do not expect to own or operate, facilities for product manufacturing, storage and distribution, or testing. In the past we have relied on third-party manufacturers for supply of our preclinical and clinical drug supplies. We expect that in the future we will continue to rely on such manufacturers for drug supplies that will be used in clinical trials of our product candidates, including arhalofenate, and for commercialization of any of our product candidates that receive regulatory approval.

The facilities used by our contract manufacturers to manufacture the product candidates must be approved by the FDA pursuant to inspections that will be conducted only after we submit an NDA to the FDA, if at all. We do not control the manufacturing process of our product candidates and are completely dependent on our contract manufacturing partners for compliance with the FDA's requirements for manufacture of finished pharmaceutical products. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the FDA's strict regulatory requirements of safety, purity and potency, we will not be able to secure and/or maintain FDA approval for our product candidates. In addition, we have no direct control over the ability of the contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If our contract manufacturers cannot meet FDA standards, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates. No assurance can be given that our manufacturers can continue to make clinical and commercial supplies of arhalofenate, or future product candidates, at an appropriate scale and cost to make it commercially feasible.

In addition, we do not have the capability to package and distribute finished products to pharmacies and other customers. Prior to commercial launch, we will enter into agreements with one or more pharmaceutical product packager/distributor to ensure proper supply chain management once we are authorized to make commercial sales of our product candidates. If we receive marketing approval from the FDA, we intend to sell pharmaceutical product packaged and distributed by such suppliers. Although we have entered into agreements with our current contract manufacturers and packager/distributor for clinical trial material, we may be unable to maintain an agreement on commercially reasonable terms, which could have a material adverse impact upon our business.

We rely on limited sources of supply for the drug substance for our lead product candidate, arhalofenate, and any disruption in the chain of supply may cause delay in developing and commercializing arhalofenate.

We are currently transferring the drug substance manufacturing process to our selected contractor that will produce the supplies needed to meet clinical development, registration and forecasted commercial demand. It is our expectation that only one supplier of drug substance and one supplier of drug product will be qualified by the FDA. If supply from an approved vendor is interrupted, there could be a significant disruption in commercial supply of arhalofenate. An alternative vendor would need to be qualified through an NDA supplement which would be expensive and could result in further delay. The FDA or other regulatory agencies outside of the U.S. may also require additional studies if a new drug substance or drug product supplier is relied upon for commercial production. These factors could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of arhalofenate, and cause us to incur additional costs. Furthermore, if our suppliers fail to deliver the required commercial quantities of active pharmaceutical ingredient on a timely basis and at commercially reasonable prices, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our supply chain for arhalofenate may be delayed, which could inhibit our ability to generate revenues.

Manufacturing issues may arise that could increase product and regulatory approval costs or delay commercialization of arhalofenate.

We are modifying the drug substance production process for arhalofenate at the selected commercial manufacturer to cost effectively remove impurities. As the modified process is scaled up it may reveal previously unknown impurities which could require resolution in order to proceed with our planned clinical trials and obtain regulatory approval for the commercial marketing of arhalofenate. In the future, we may identify impurities, which could result in increased scrutiny by the regulatory agencies, delays in the clinical program and regulatory approval for arhalofenate, increases in our operating expenses, or failure to obtain or maintain approval for arhalofenate.

Our reliance on third-party manufacturers entails risks, including the following:

- the inability to meet our product specifications and quality requirements consistently;
- a delay or inability to procure or expand sufficient manufacturing capacity;
- manufacturing and product quality issues related to scale-up of manufacturing;
- costs and validation of new equipment and facilities required for scale-up;
- a failure to comply with cGMP and similar foreign standards;
- the inability to negotiate manufacturing agreements with third parties under commercially reasonable terms;
- termination or nonrenewal of manufacturing agreements with third parties in a manner or at a time that is costly or damaging to us;
- the reliance on a limited number of sources, and in some cases, single sources for key materials, such that if we are unable to secure a sufficient supply of these key materials, we will be unable to manufacture and sell our product candidates in a timely fashion, in sufficient quantities or under acceptable terms;
- the lack of qualified backup suppliers for those materials that are currently purchased from a sole or single source supplier;
- operations of our third-party manufacturers or suppliers could be disrupted by conditions unrelated to our business or operations, including the bankruptcy of the manufacturer or supplier;
- carrier disruptions or increased costs that are beyond our control; and
- the failure to deliver our products under specified storage conditions and in a timely manner.

Any of these events could lead to clinical study delays, failure to obtain regulatory approval or impact our ability to successfully commercialize our products. Some of these events could be the basis for FDA or other regulatory authorities' action, including injunction, recall, seizure, or total or partial suspension of production.

We rely on third parties to conduct, supervise and monitor our clinical studies, and if those third parties perform in an unsatisfactory manner, it may harm our business.

We rely on contract service providers (CSPs) including clinical research organizations, clinical trial sites, central laboratories and other service providers to ensure the proper and timely conduct of our clinical trials. While we have agreements governing their activities, we have limited influence over their actual performance. We have relied and plan to continue to rely upon CSPs to monitor and manage data for our ongoing clinical programs for arhalofenate and our other product candidates, as well as the execution of nonclinical studies. We control only certain aspects of our CSPs' activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CSPs does not relieve us of our regulatory responsibilities.

We and our CSPs are required to comply with the FDA's guidance, which follows the International Conference on Harmonization Good Clinical Practice (ICH GCP), which are regulations and guidelines enforced by the FDA for all of our product candidates in clinical development. The FDA enforces the ICH GCP through periodic inspections of trial sponsors, principal investigators and clinical trial sites. If we or our CSPs fail to comply with the ICH GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA may require us to perform additional clinical trials before approving our marketing applications. For example, upon inspection, the FDA may determine that our Phase 3 clinical trial for arhalofenate, does not comply with the ICH GCP. In addition, our Phase 3 clinical trials for arhalofenate will require a sufficiently large number of test subjects to evaluate the safety and effectiveness of arhalofenate. Accordingly, if our CSPs fail to comply with these regulations or fail to recruit a sufficient number of subjects, we may be required to repeat these Phase 3 clinical trials, which would delay the regulatory approval process.

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

Risks Related to Commercialization of Our Product Candidates

The commercial success of arhalofenate and our other product candidates will depend upon the acceptance of these products by the medical community, including physicians, patients and health care payors.

If any of our product candidates, including arhalofenate, receive marketing approval, they may nonetheless not gain sufficient market acceptance by physicians, patients, health care payors and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of any of our product candidates, including arhalofenate, will depend on a number of factors, including the following:

- demonstration of clinical safety and efficacy in our clinical trials;
- the risk/benefit profile of our products such as arhalofenate;
- the relative convenience, ease of administration and acceptance by physicians, patients and health care payors;
- the prevalence and severity of any side effects;
- the safety of product candidates seen in a broader patient group, including its use outside the approved indications;
- limitations or warnings contained in the FDA and other regulatory authorities approved label for the relevant product candidate;
- acceptance of the product by physicians, other health care providers and patients as a safe and effective treatment;

- the potential and perceived advantages of product candidates over alternative treatments;
- the timing of market introduction of competitive products;
- pricing and cost-effectiveness;
- the effectiveness of our or any future collaborators' sales and marketing strategies;
- our ability to obtain formulary approval;
- our ability to obtain and maintain sufficient third-party coverage or reimbursement, which may vary from country to country; and
- the effectiveness of our or any future collaborators' sales, marketing and distribution efforts.

If any of our product candidates, including arhalofenate, is approved but does not achieve an adequate level of acceptance by physicians, patients and health care payors, we may not generate sufficient revenue and we may not become or remain profitable.

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

We currently do not have an organization for the sales, marketing and distribution of pharmaceutical products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be approved, including arhalofenate, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. We may enter into strategic partnerships with third parties to commercialize our product candidates, including arhalofenate.

If we are unable to build our own sales force or negotiate a strategic partnership for the commercialization of arhalofenate, we may be forced to delay the potential commercialization of arhalofenate, or reduce the scope of our sales or marketing activities for arhalofenate. If we elect to increase our expenditures to fund commercialization activities ourselves, we will 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 arhalofenate to market or generate product revenue.

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 sufficient product revenue and may not become profitable. We will be competing with companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

In addition, there are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

If we obtain approval to commercialize any products outside of the U.S., a variety of risks associated with international operations could materially adversely affect our business.

If our product candidates are approved for commercialization, we intend to enter into agreements with third parties to market those product candidates outside the U.S., including for arhalofenate. We expect that we will be subject to additional risks related to international operations, including the following:

- different regulatory requirements for drug approvals in foreign countries;
- reduced protection for intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in the U.S.;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism, pandemics, or natural disasters including earthquakes, typhoons, volcanic eruptions, floods and fires.

We have no prior experience in these areas. In addition, there are complex regulatory, tax, labor and other legal requirements imposed by both the European Union and many of the individual countries in Europe with which we will need to comply. Many U.S.-based biopharmaceutical companies have found the process of marketing their own products in Europe to be very challenging.

If our competitors develop and market products that are more effective, safer or less expensive than arhalofenate, our commercial opportunities will be negatively impacted.

The life sciences industry is highly competitive, and we face significant competition from other pharmaceutical, biopharmaceutical and biotechnology companies and possibly from academic institutions, government agencies and private and public research institutions that are researching, developing and marketing products designed to address the treatment of gout. Our competitors may have significantly greater financial, manufacturing, marketing and drug development resources. Large pharmaceutical companies, in particular, have extensive experience in the clinical testing of, obtaining regulatory approvals for, and marketing of, drugs. New developments, including the development of other pharmaceutical technologies and methods of treating disease, occur in the pharmaceutical and life sciences industries at a rapid pace.

These developments may render our product candidates obsolete or noncompetitive. Compared to us, potential competitors may have substantially greater:

- research and development resources, including personnel and technology;
- regulatory experience;
- experience in pharmaceutical development and commercialization;

- ability to negotiate competitive pricing and reimbursement with third-party payors;
- experience and expertise in exploitation of intellectual property rights; and
- capital resources.

As a result of these factors, our competitors may obtain regulatory approval of their products more rapidly than we do or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. The competitors may also develop products that are more effective, better tolerated, more useful and less costly than our products and they may also be more successful in manufacturing and marketing their products.

Formulary approval and reimbursement may not be available for arhalofenate and our other product candidates, which could make it difficult for us to sell our products profitably.

Obtaining formulary approval can be an expensive and time consuming process. We cannot be certain if and when we will obtain formulary approval to allow us to promote our product candidates, including arhalofenate, into our target markets. Failure to obtain timely formulary approval will limit our commercial success.

Furthermore, market acceptance and sales of arhalofenate, or any other product candidates that we develop, will depend in part on the extent to which reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A prevailing trend in the U.S. health care industry and elsewhere is cost containment. Government authorities and these third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Reimbursement may impact the demand for, or the price of, any product for which we obtain marketing approval. We cannot be sure that reimbursement will be available for arhalofenate, or any other product candidates. Also, reimbursement amounts may reduce the demand for, or the price of, our products. If reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize arhalofenate, or any other product candidates that we develop.

There have been a number of legislative and regulatory proposals to change the health care system in the U.S. and in some foreign jurisdictions that could affect our ability to sell any future products profitably. These legislative and regulatory changes may negatively impact the reimbursement for any future products, following approval. The availability of generic treatments may also substantially reduce the likelihood of reimbursement for any future products, including arhalofenate. The application of user fees to generic drug products will likely expedite the approval of additional generic drug treatments. We expect to experience pricing pressures in connection with the sale of arhalofenate and any other product candidate that we develop, due to the trend toward managed health care, the increasing influence of health maintenance organizations and additional legislative changes.

In addition, there may be significant delays in obtaining reimbursement for approved products, and coverage may be more limited than the purposes for which the product is approved by the FDA or health authorities in other countries. Moreover, eligibility for reimbursement does not imply that any product will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Payment rates may vary according to the use of the product and the clinical setting in which it is used, may be based on payments allowed for lower cost products that are already reimbursed, and may be incorporated into existing payments for other services. Net prices for products may be reduced by mandatory

discounts or rebates required by government health care programs or private payors and by any future relaxation of laws that presently restrict imports of products from countries where they may be sold at lower prices than in the U.S. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies.

If we are unable to promptly obtain coverage and profitable payment rates from both government funded and private payors for any of our product candidates, including arhalofenate, it could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Even if we receive regulatory approval for arhalofenate, we will be subject to ongoing FDA and other regulatory obligations and continued regulatory review, which may result in significant additional expense and limit our ability to commercialize arhalofenate.

Any regulatory approvals that we or potential collaboration partners receive for arhalofenate or future product candidates, may also be subject to limitations on the indicated uses for which the product may be marketed or contain requirements for potentially costly post-marketing studies. In addition, even if approved, the labeling, packaging, adverse event reporting, storage, advertising, promotion and recordkeeping for any product will be subject to extensive and ongoing regulatory requirements. The subsequent discovery of previously unknown problems with a product, including AEs of unanticipated severity or frequency, may result in restrictions on the marketing of the product, and could include withdrawal of the product from the market.

Regulatory policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the U.S. or abroad. If we are not able to maintain regulatory compliance, we might not be permitted to market arhalofenate or future products, if any, and we may not achieve or sustain profitability.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical studies, and will face an even greater risk if we sell our product candidates commercially. An individual may bring a liability claim against us if one of our product candidates causes, or merely appears to have caused, an injury. If we cannot successfully defend ourselves against product liability claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in the following:

- decreased demand for our product candidates;
- impairment to our business reputation;
- withdrawal of clinical study participants;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates; and
- loss of revenues.

We do carry product liability insurance for our clinical studies. Further, we intend to expand our insurance coverage to include the sale of commercial products if marketing approval is obtained for any of our product candidates. However, we may be unable to obtain this product liability insurance on commercially reasonable terms and with insurance coverage that will be adequate to satisfy any liability that may arise. On occasion, large

judgments have been awarded in class action or individual lawsuits relating to marketed pharmaceuticals. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

The success of our business depends primarily upon our ability to identify, develop and commercialize product candidates. Because we have limited financial and managerial resources, we focus on product candidates for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or other indications that later prove to have greater commercial potential. We may focus our efforts and resources on product candidates that ultimately prove to be unsuccessful.

If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to retain sole development and commercialization rights.

Risks Related to Our Intellectual Property

If we are unable to obtain or protect intellectual property rights related to our products and product candidates, we may not be able to compete effectively in our market.

We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to our products and product candidates. The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. The patent applications that we own or in-license may fail to result in issued patents with claims that cover the products in the U.S. or in other countries. If this were to occur, early generic competition could be expected against arhalofenate and other product candidates in development. There is no assurance that all of the potentially relevant prior art relating to our patents and patent applications has been found, which can invalidate a patent or prevent a patent from issuing based on a pending patent application. Even if patents do successfully issue, third parties may challenge their validity, enforceability, scope or ownership, which may result in such patents, or our rights to such patents, being narrowed or invalidated. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing around our claims. If the patent applications we hold or license with respect to arhalofenate fail to issue or if their breadth or strength of protection is threatened, it could dissuade companies from collaborating with us and threaten our ability to commercialize our products. We cannot offer any assurances about which, if any, patents will issue or whether any issued patents will be found invalid or unenforceable, will be challenged by third parties or will adequately protect our products and product candidates. Further, if we encounter delays in development or regulatory approvals, the period of time during which we could market arhalofenate under patent protection could be reduced. Since patent applications in the U.S. and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we or our licensors were the first to file any patent application related to arhalofenate or our other product candidates. Furthermore, if third parties have filed such patent applications, an interference proceeding in the U.S. can be provoked by a third party or instituted by us to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license it from the prevailing party, which may not be available on commercially reasonable terms or at all.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and other elements of our drug discovery and development processes that involve proprietary know-how,

information or technology that is not covered by patents. Although we expect all of our employees to assign their inventions to us, and all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology to enter into confidentiality agreements, we cannot provide any assurances that all such agreements have been duly executed, that such agreements provide adequate protection and will not be breached, that our trade secrets and other confidential proprietary information will not otherwise be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. If we are unable to prevent material disclosure of the non-patented intellectual property related to our technologies to third parties, and there is no guarantee that we will have any such enforceable trade secret protection, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, results of operations and financial condition.

Further, the laws of some foreign countries do not protect patents and other proprietary rights to the same extent or in the same manner as the laws of the U.S. As a result, we may encounter significant problems in protecting and defending our intellectual property abroad. We may also fail to pursue or obtain patents and other intellectual property protection relating to our products and product candidates in all foreign countries.

Third-party claims of intellectual property infringement may prevent or delay our development and commercialization efforts or otherwise affect our business.

Our commercial success depends in part on our avoiding infringement and other violations of the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the U.S., involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and inter party re-examination proceedings before the U.S. Patent and Trademark Office (U.S. PTO) and its foreign counterparts. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we and our collaborators are developing product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, and as we gain greater visibility and market exposure as a public company, the risk increases that our product candidates or other business activities may be subject to claims of infringement of the patent and other proprietary rights of third parties.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of arhalofenate and/or our other product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of any of our product candidates, any molecules formed during the manufacturing process or any final product itself, the holders of any such patents may be able to block our ability to commercialize such product candidate unless we obtained a license under the applicable patents, or until such patents expire. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy, the holders of any such patent may be able to block our ability to develop and commercialize the applicable product candidate unless we obtained a license or until such patent expires. In either case, such a license may not be available on commercially reasonable terms or at all. In addition, we may be subject to claims that we are infringing other intellectual property rights, such as trademarks or copyrights, or misappropriating the trade secrets of others, and to the extent that our employees, consultants or contractors use intellectual property or proprietary information owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial

diversion of employee resources from our business. In the event of a successful infringement or other intellectual property claim against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our affected products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates, and we have done so from time to time. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize one or more of our product candidates, which could harm our business significantly. We cannot provide any assurances that third-party patents do not exist which might be enforced against our products or product candidates, resulting in either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties.

We license certain key intellectual property from third parties, and the loss of our license rights could have a materially adverse effect on our business.

We are a party to a number of technology licenses that are important to our business and expect to enter into additional licenses in the future. For example, we rely on an exclusive license to certain patents, proprietary technology and know-how from DiaTex, which include arhalofenate. If we fail to comply with our obligations under our agreement with DiaTex or our other license agreements, or we are subject to a bankruptcy, the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license, including in the case of the DiaTex license, arhalofenate, which would have a materially adverse effect on our business.

We may be involved in lawsuits to protect or enforce our patents, the patents of our licensors or our other intellectual property rights, which could be expensive, time consuming and unsuccessful.

Competitors may infringe or otherwise violate our patents, the patents of our licensors or our other intellectual property rights. To counter infringement or unauthorized use, we may be required to file legal claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours or our licensors is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing. The initiation of a claim against a third party may also cause the third party to bring counter-claims against us.

We may not be able to prevent, alone or with our licensors, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the U.S. Our business could be harmed if in a litigation the prevailing party does not offer us a license on commercially reasonable terms. Any litigation or other proceedings to enforce our intellectual property rights may fail, and even if successful, may result in substantial costs and distract our management and other employees.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on any issued patent are due to be paid to the U.S. PTO and foreign patent agencies in several stages over the lifetime of the patent. The U.S. PTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we or our licensors that control the prosecution and maintenance of our licensed patents fail to maintain the patents and patent applications covering our product candidates, we may lose our rights and our competitors might be able to enter the market, which would have a material adverse effect on our business.

Risks Related to Our Business Operations and Industry

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on principal members of our executive team listed under "Management." While we have entered into employment agreements or offer letters with each of our executive officers, any of them could leave our employment at any time, as all of our employees are "at will" employees. We do not maintain "key person" insurance for any of our executives or other employees. Recruiting and retaining other qualified employees for our business, including scientific and technical personnel, will also be critical to our success. There is currently a shortage of skilled executives in our industry, which is likely to continue. We also experience competition from universities and research institutions for the hiring of scientific and clinical personnel. As a result, competition for skilled personnel is intense and the turnover rate can be high. We may not be able to attract and retain personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. In addition, failure of any of our clinical studies may make it more challenging to recruit and retain qualified personnel. The inability to recruit or loss of the services of any executive or key employee may adversely affect the progress of our research, development and commercialization objectives.

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, which could also adversely affect the progress of our research, development and commercialization objectives.

We will need to expand our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.

As of August 1, 2013, we had 12 full-time employees and three consultants. As our company matures, we expect to expand our employee base to increase our managerial, clinical, scientific and engineering, operational, sales, and marketing teams. Future growth would impose significant additional responsibilities on our management, including the need to identify, recruit, maintain, motivate and integrate additional employees, consultants and contractors. Also, our management may need to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in

our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of product candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and/or grow revenues could be reduced, and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize arhalofenate and our other product candidates and compete effectively will depend, in part, on our ability to effectively manage any future growth.

ITEM 2. FINANCIAL INFORMATION.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

Some of the statements under in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" are forward-looking statements. These forward-looking statements are based on management's beliefs and assumptions and on information currently available to our management and involve significant elements of subjective judgment and analysis. Words such as "expects," "will," "anticipates," "targets," "goals," "projects," "intends," "plans," "believes," "seeks," "estimates," "potential," "should," "could," variations of such words, and similar expressions are intended to identify forward-looking statements. Our actual results and the timing of events may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such a difference include those discussed under the caption "Disclosure Regarding Forward Looking Statements" at the beginning of this Form 10, and in "Item 1A. Risk Factors" and elsewhere in this Form 10. These and many other factors could affect our future financial and operating results. We undertake no obligation to update any forward-looking statement to reflect events after the date of this Form 10.

Overview

CymaBay Therapeutics is a clinical-stage biopharmaceutical company that is focused on the development and commercialization of proprietary new medicines for the treatment of metabolic diseases. Arhalofenate, CymaBay's lead product candidate, has completed three Phase 2 studies for the treatment of gout. Arhalofenate possesses two therapeutic actions: in gout patients it is intended to prevent painful attacks in joints while promoting excretion of uric acid by the kidney. CymaBay intends to initiate a Phase 2b study for arhalofenate in 225 patients. CymaBay is also developing a pipeline of product candidates for the treatment of diabetes and dyslipidemia.

We are an emerging growth company. Under the JOBS Act emerging growth companies can delay adopting new or revised accounting standards until such time of those standards apply to private companies. We plan to avail ourselves of this exemption from new or revised accounting standards, and therefore, we may not be subject to the same new or revised accounting standards as other public companies that are not "emerging growth companies".

Critical Accounting Policies and Use of Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. We base our estimates on historical experience and on various other factors that we believe to be materially reasonable under the circumstances and review our estimates on an ongoing basis. Actual results may materially differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 of our financial statements included in this Form 10, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

Our contract revenues are generated primarily through research and development collaboration agreements, which may include nonrefundable, non-creditable upfront fees, funding for research and development efforts, and milestone or other contingent payments for achievements with regards to our licensed products. We have not materially modified any previous collaboration agreements or entered into any new agreements in 2012, nor have we received any milestone payments in 2012. Therefore, all collaboration agreements have been accounted for in accordance with the accounting guidance applicable to such arrangements prior to the adoption of Accounting Standards Update (ASU) 2009-13, Multiple-Deliverable Revenue Arrangements, and ASU 2010-17, Revenue Recognition – Milestone Method.

We recognize revenue when pervasive evidence of an arrangement exists, transfer of technology has been completed, services are performed or products have been delivered, the fee is fixed and determinable, and collection is reasonably assured.

Upfront payments for licensing our intellectual property to date have not been separable from the activity of providing research and development services because the license has not been assessed to have stand-alone value separate from the research and development services provided. Such upfront payments are recorded as deferred revenue in the balance sheet and are recognized as contract revenue over the contractual or estimated substantive performance period, which is consistent with the term of the research and development obligations contained in the research and development collaboration agreement.

Payments resulting from our research and development efforts under license agreements are recognized as the activities are performed.

Substantive, at-risk milestone payments are recognized as revenue when the milestone is achieved and collectability is reasonably assured. When contingent payments are not for substantive and at-risk milestones, revenue is recognized over the estimated remaining term of the related service period or, if there are no continuing performance obligations under the arrangement, upon receipt provided that collection is reasonably assured and other revenue recognition criteria have been satisfied.

Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing contracts, reviewing the terms of our license agreements, communicating with our applicable personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. The majority of our service providers invoice us monthly in arrears for services performed. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of estimated accrued research and development expenses include fees to:

- contract research organizations and other service providers in connection with clinical studies;
- contract manufacturers in connection with the production of clinical trial materials; and
- vendors in connection with preclinical development activities.

We base our expenses related to clinical studies on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and contract research organizations that conduct and manage clinical studies on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows and expense recognition. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the

completion of clinical trial milestones. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual accordingly. Our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in our reporting changes in estimates in any particular period. Adjustments to prior period estimates have not been material for the years ended December 31, 2011 and 2012, and for the three months ended March 31, 2013 and 2012.

Stock-Based Compensation

We expense stock-based compensation to employees over the requisite service period based on the estimated grant-date fair value-based measurement of the awards and considering estimated forfeiture rates. For stock-based compensation awards to non-employees, we re-measure the fair value-based measurement of the non-employee awards at each reporting period prior to vesting and finally at the vesting date of the award. Changes in the estimated fair value-based measurement of these non-employee awards are recognized as compensation expense in the period of change.

Determining the appropriate fair value-based measurement of stock-based awards requires the use of subjective assumptions. In the absence of a public trading market for our common stock, we conducted periodic assessments of the valuation of our common stock. These valuations were performed concurrently with the achievement of significant milestones, with major financing transactions or when prior valuations became stale under Section 409A of the Internal Revenue Code. The determination of the fair value-based measurement of options using an option-pricing model is affected by our estimated common stock fair value as well as assumptions regarding a number of other subjective variables. These other variables include the expected term of the options, our expected stock price volatility over the expected term of the options, stock option exercise and cancellation behaviors, risk-free interest rates, and expected dividends, which are estimated as follows:

- Fair Value of our Common Stock: Because our stock is not publicly traded, we must estimate its fair value, as discussed in "Common Stock Valuations" below.
- Expected Term: We do not believe we are able to rely on our historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term for use in determining the fair value-based measurement of our options. Therefore, we have opted to use the "simplified method" for estimating the expected term of options.
- Volatility: As we do not have a trading history for our common stock, the expected stock price volatility for our common stock was estimated by taking an average weighted historic price volatility for industry peers based on daily price observations over a period equivalent to the expected term of the stock option grants. Industry peers consist of several public companies in the biopharmaceutical industry similar in size, stage of life cycle and financial leverage. We did not rely on implied volatilities of traded options in our industry peers' common stock because the volume of activity was relatively low. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own common stock share price becomes available, or unless circumstances change such that the identified companies are no longer similar to us, in which case, more suitable companies whose share prices are publicly available would be utilized in the calculation.
- Risk-free Rate: The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.
- Dividend Yield: We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we used an expected dividend yield of zero.

The estimation of the number of stock awards that will ultimately vest requires judgment, and to the extent actual results or updated estimates differ from our current estimates, such amounts will be recorded as a

cumulative adjustment in the period in which estimates are revised. Forfeitures are estimated such that we only recognize expense for those shares expected to vest, and adjustments are made if actual forfeitures differ from those estimates.

For the years ended December 31, 2012, and 2011, stock-based compensation expense was $0.1 million, and $0.8 million, respectively. For the three month periods ended March 31, 2013 and 2012 stock-based compensation expense was $18,000 and $29,000, respectively. As of March 31, 2013 and December 31, 2012, we had $65,000 and $91,000 of total unrecognized compensation expense, net of related forfeiture estimates, which we expect to recognize over a weighted-average period of approximately 2.3 years and 2.5 years, respectively.

If any of the assumptions used in a Black-Scholes model changes significantly, stock-based compensation for future awards may differ materially compared with the awards granted previously.

Common Stock Valuations

The fair value of the common stock underlying our stock options and restricted stock was determined by our board of directors, which intended all options granted to be exercisable at a price per share not less than the per share fair value of our common stock underlying those options on the date of grant. All stock awards previously granted or to be granted in the future were or are expected to be granted at the grant date fair value of the award. The valuations of our common stock were determined in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Valuation analysis of our common stock was performed on our behalf by third party valuation specialists. The methodology used by the third party valuation specialists to determine the fair value of our common stock included estimating the fair value of the enterprise, subtracting the fair value of debt from this enterprise value, and then allocating this value using the Option Pricing Method to all of the equity interests. The assumptions used in the valuation model to determine the fair value of our common stock as of the date of each option and restricted stock award, are based on numerous objective and subjective factors combined with management judgment including the following:

- progress of research and development activities;
- our operating and financial performance;
- market conditions;
- developmental milestones achieved;
- sales of our convertible preferred stock in arms-length transactions;
- business risks; and
- management and board of director experience.

We have granted stock options during the period from January 1, 2011, through March 31, 2013, as summarized below:

Date of Issuance	Number of Shares Subject to Options Granted	Exercise Price per Share	Fair Value Estimate per Common Share	Estimated Total Fair Value-Based Measurement of Options Granted (In thousands)
January 25, 2012	1,200,000	$ 0.06	$ 0.05	$ 58

Management and our board of directors performed valuation analyses with the assistance of independent valuation specialists to determine the then current fair value of our common stock. To facilitate these valuation analyses, we developed projections of our future revenues and operating expenses. Key assumptions reflected in

the income approach calculations included the anticipated timing of a potential liquidity event, the estimated volatility of our common stock, and the discount for lack of marketability of our common stock. These income approach assumptions are set forth below for each of the valuations performed as of December 31, 2012 and 2011:

	December 31,	
	2011	2012
Common Stock Value per Share	$0.06	$0.01
Time to Liquidity (in years)	1.5	2.0
Volatility	92.7%	94.7%
Risk-Free Interest Rate	0.20%	0.30%
Marketability Discount Rate	42.8%	49.2%

For grants of stock awards made on dates for which there was no valuation performed by an independent valuation specialist, our board of directors determined the fair value of our common stock on the date of grant based upon the immediately preceding valuation and other pertinent information available to it at the time of grant.

Results of Operations

General

To date, we have not generated any net income from operations. Since our date of incorporation through March 31, 2013, we have an accumulated deficit of $335.2 million, primarily as a result of expenditures for research and development and general and administrative expenses. While we may in the future generate revenue from a variety of sources, including license fees and milestone payments in connection with strategic partnerships, our product candidates are at a mid-level stage of development and may never be successfully developed or commercialized. Accordingly, we expect to continue to incur substantial losses from operations for the foreseeable future and there can be no assurance that we will ever generate significant revenue.

Contract Revenue

Our recent revenue comprises primarily collaboration agreement-related revenue. Collaboration agreement-related revenue has included license fees, payments for research and development services and milestone and other contingent payments. For the quarter ended March 31, 2013 there were no collaboration revenues.

Research & Development Expenses

Conducting research and development is central to our business model. For the years ended December 31, 2012 and 2011, and the three months ended March 31, 2013 and 2012, research and development expenses were $9.3 million, $14.4 million, $1.5 million, and $2.7 million, respectively. Research and development expenses are detailed in the table below:

	(In thousands)			
	Three months ended March 31,		Year ended December 31,	
	2013	2012	2012	2011
	(unaudited)			
MBX-102 Clinical and Non-Clinical	$ 9	$ 8	$ 39	$ 123
MBX-102 Gout – Three Phase 2 Randomized Studies	394	1,174	3,741	5,774
MBX-8025	—	(3)	21	48
MBX-2982	16	54	118	394
Other Projects	1	—	—	202
Total Project Costs	420	1,233	3,919	6,541
Internal Research and Development Costs	1,070	1,452	5,361	7,850
Total Research and Development	1,490	2,685	9,280	14,391

Our external research and development costs consist primarily of:

- expenses incurred under agreements with contract research organizations, investigative sites and consultants that conduct our clinical trials and a substantial portion of our preclinical activities;
- the cost of acquiring and manufacturing clinical trial and other materials; and
- other costs associated with development activities, including additional studies

Internal research and development costs consist primarily of salaries and related fringe benefits costs for our employees (such as workers compensation and health insurance premiums), stock-based compensation charges, travel costs, lab supplies and overhead expenses. Internal costs generally benefit multiple projects and are not separately tracked per project.

We expect to continue to incur substantial expenses related to our development activities for the foreseeable future as we continue product development and initiate our next clinical study for arhalofenate. Since product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later stage clinical trials, we expect that our research and development expenses will increase in the future. In addition, if our product development efforts are successful, we expect to incur substantial costs to prepare for potential Phase 3 clinical trials and activities.

General and Administrative Expenses

General and administrative expenses consist principally of personnel-related costs, professional fees for legal, consulting, audit services, rent and other general operating expenses not otherwise included in research and development. For the years ended December 31, 2012 and 2011, and the three months ended March 31, 2013 and 2012, general and administrative expenses were $4.2 million, $4.7 million, $0.9 million, and $1.1 million, respectively. We anticipate general and administrative expenses will increase in future periods, reflecting an expanding infrastructure and increased professional fees associated with being a public reporting company under the Exchange Act.

Comparison of Three Months Ended March 31, 2013 and 2012

	For the Three Months Ended March 31,		
	2013	2012	Variance
	(unaudited)		
($ in thousands)			
Contract revenue	$ —	$ 113	$ (113)
Operating expenses:			
Research and development	1,490	2,685	(1,195)
General and administrative	925	1,149	(224)
Loss from operations	(2,415)	(3,721)	1,306
Interest income (expense), net	(211)	(186)	(25)
Other income (expense), net	(2)	1	(3)
Net loss from operations	$(2,628)	$(3,906)	$ 1,278

Contract revenue as of March 31, 2012, was related to specific research and development funding with Takeda San Francisco, Inc. ("Takeda"). The decrease in contract revenue from the three months ended March 2012, to the three months ended March 2013, was due to the termination of the agreement effective March 31, 2013.

Research and development expenses decreased $1.2 million, from $2.7 million to $1.5 million for the three months ended March 31, 2012 and 2013, respectively. The reduction in costs primarily arose due to the completion of several clinical trials in early 2012 and reduction in labor costs due to the voluntary attrition of six people from March 31, 2012, to March 31, 2013.

General and administrative expenses decreased $0.2 million from $1.1 million for the three months ended March 31, 2012, to $0.9 million for the three months ended March 31, 2013. The decrease in general and administrative expenses was primarily due to a reduction of $0.1 million in labor costs from voluntary attrition, and $0.1 million of patent and general legal costs.

Interest income (expense), net, increased by $25,000 as of March 31, 2013 compared to March 31, 2012 due to the recognition of interest expense being calculated on the principal debt balance and increasing cumulative interest due.

Comparison of Years Ended December 31, 2012 and 2011

	For the Year Ended December 31,		
($ in thousands)	2012	2011	Variance
Contract revenue	$ 3,050	$15,147	$(12,097)
Operating expenses:			
Research and development	9,280	14,391	(5,111)
General and administrative	4,208	4,654	(446)
Loss from operations	(10,438)	(3,898)	(6,540)
Interest income (expense), net	(819)	(627)	(192)
Other income (expense), net	2	28	(26)
Net loss	$(11,255)	$ (4,497)	$ (6,758)

Contract revenue in each period related to our arrangement with Takeda for an annual license fee and research and development services totaled $0.1 million and $0.2 million for the years ended December 31, 2011

and 2012, respectively. We recognized approximately $2.9 million in contract revenue in 2012, which was received as a final payment of contract revenue associated with termination of a collaboration agreement with Sanofi-Aventis. Contract revenue decreased by $12.1 million from the year ended December 31, 2011, to the year ended December 31, 2012. This decrease was primarily attributable to the termination of the collaboration agreement with Sanofi-Aventis.

Research and development expenses decreased by $5.1 million from the year ended December 31, 2011, to the year ended December 31, 2012. This decrease was attributable to a decrease in clinical trial cost of $2.6 million in 2012 and decreases in consulting and personnel related expenses, including salaries, travel and supplies of $1.4 million. Stock compensation expense, depreciation and overhead allocations totaling $0.7 million accounts for the remainder of the decrease. The decrease in clinical trial costs is primarily related to the completion of three small Phase 2 clinical trials. The decrease in personnel related expenses was primarily attributed to a reduction of six employees in our research and development organization which also impacted stock compensation expense.

General and administrative expenses decreased $0.4 million from the year ended December 31, 2011, to the year ended December 31, 2012. This decrease is primarily attributable to a decrease in personnel related expenses, including stock compensation, and facility and office costs, and bank service charges of $0.7 million. This was partially offset by an increase in travel related to obtaining financing and professional costs of $0.4 million.

Interest expense increased $0.1 million in 2012 from $0.7 million for the year ended December 31, 2011, due to interest expense being calculated on the principal balance and an increasing cumulative interest balance due. Also in 2012, the interest rate on the convertible debt was increased by 0.5% due to several amendments in which the maturity dates of the note were extended to March 31, 2013 and then August 1, 2013. Also as a result of these amendments, a conversion option which increased the convertible debt by $70,000 was recognized in 2012. $60,000 of the conversion option was amortized to interest expense as of December 31, 2012. Interest income was $22,000 for the year ended December 31, 2012 and $78,000 for the year ended December 31, 2011. The decrease was attributable to reduced yields from lower investment balances in our portfolio which consisted primarily of government securities and money market funds.

Income Taxes

As of December 31, 2012, we had federal and state net operating loss carryforwards of approximately $156.0 million to offset future federal income taxes which will expire beginning in 2024 through 2032 and the state income taxes which will expire beginning in 2014 through 2032. Current federal and state tax laws include substantial restrictions on the utilization of net operating losses and tax credits in the event of an ownership change. Even if the carryforwards are available, they may be subject to annual limitations, lack of future taxable income, or future ownership changes that could result in the expiration of the carryforwards before they are utilized. At December 31, 2012, we recorded a 100% valuation allowance against our deferred assets of approximately $1.7 million as our management believes it is uncertain that they will be fully realized. If we determine in the future that we will be able to realize all or a portion of our net operating loss carryforwards, an adjustment to our net operating loss carryforwards would increase net income in the period in which we make such a determination.

Liquidity and Capital Resources

To date, we have funded our operations through the sale of equity securities and collaborations with third parties. At March 31, 2013, we had cash and cash equivalents of $5.6 million. We will need to continue to raise capital to complete our ongoing and planned clinical trials.

The following table summarizes our equity funding sources as of August 1, 2013:

Series *($ millions)*	Year	Number of Shares	Net Proceeds
A-1 Convertible Preferred Stock, net	1990 - 2001	1,012,389	$ 73.2
B-1 Convertible Preferred Stock, net	2003 - 2008	29,671,222	85.8
C-1 Convertible Preferred Stock, net	2006	2,173,913	10.0
D-1 Convertible Preferred Stock, net	2007	7,974,997	28.7
E-1 Convertible Preferred Stock, net	2009 - 2010	3,121,593	9.1
E-3 Convertible Preferred Stock, net	2010	5,687,700	26.1
TOTAL		49,641,814	$ 232.9

Cash Flows for the Three Months Ended March 31, 2013 and 2012 and the Years Ended December 31, 2012 and 2011

Operating Activities

Cash used in operating activities decreased $1.8 million for the three months ended March 31, 2013, compared to the three months ended March 31, 2012, primarily due to a $1.8 million net change in the components of operating assets and liabilities and a $1.3 million decrease in net loss. Cash used in operating activities decreased $6.6 million for the year ended December 31, 2012 as compared to the year ended December 31, 2011 primarily due to an increase in the net loss of $6.8 million and a decrease in recognized deferred revenue of $14.7 million.

Investing Activities

Cash used in and provided by investing activities for the three months ended March 31, 2013 and 2012, and the years ended December 31, 2012 and 2011, consists primarily of purchases of marketable securities offset primarily by proceeds from maturities of marketable securities.

Financing Activities

Cash used in financing activities decreased $0.2 million for the twelve months ended December 31, 2012, compared to the twelve months ended December 31, 2011, primarily due to principal payments on equipment loans.

Management believes that cash and cash equivalents as of March 31, 2013, are insufficient to sustain the operations of the company beyond the end of September 2013. We expect to incur substantial expenditures in the foreseeable future for the development and potential commercialization of our product candidates. We will continue to require additional financing to develop our products and fund operating losses. We will seek funds through equity financings, collaborative or other arrangements with corporate sources, or through other sources of financing, including a public offering. Adequate additional funding may not be available to us on acceptable terms or at all. Our failure to raise capital as and when needed could have a negative impact on our financial condition and our ability to pursue our business strategies. If adequate funds are not available to us, we may be required to close our business.

Contractual Obligations and Commitments

We have lease obligations consisting of an operating lease for our operating facility that commenced in July 2010 and expires April 2014, for approximately 41,600 square feet in Hayward, CA.

Preferred stockholders are entitled to receive cumulative dividends of $88.9 million as of March 31, 2013 when and as declared by the board of directors but only out of funds that are legally available. All such dividends

shall accrue automatically on a daily basis and all accrued and unpaid dividends shall be fully paid prior to payment of any other dividend on shares of the Company's common stock. As of March 31, 2013, no dividends have been declared by the board.

Off-Balance Sheet Arrangements

We do not currently have, nor have we ever had, any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts.

ITEM 3. PROPERTIES.

CymaBay leases its corporate office located in Hayward, California, under a lease that expires in April 2014, with an option to renew for a two-year term. CymaBay believes that its existing facilities are adequate to meet its current requirements.

ITEM 4. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

Beneficial Ownership of Common Stock

The following table sets forth information regarding the beneficial ownership of CymaBay common stock as of August 1, 2013, by (1) each of its directors and named executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay common stock and (3) all of CymaBay's executive officers and directors as a group. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
Harold Van Wart, Ph.D. (2)	2,603,407	4.7%
Charles A. McWherter, Ph.D. (3)	680,208	1.3%
Bonnie A. Charpentier, Ph.D. (4)	368,304	*
Robert L. Martin, Ph.D. (5)	345,746	*
Patrick J. O'Mara (6)	381,679	*
Diana Petty (7)	278,612	*
Louis G. Lange, M.D., Ph.D. (8)	447,459	*
Eric Converse (9)	4,436,869	8.4%
Anthony B. Evnin, Ph.D. (10)	4,672,862	8.8%
Carl Goldfischer, M.D. (11)	3,711,978	7.0%
Hari Kumar, Ph.D. (12)	4,672,861	8.8%
Edward E. Penhoet, Ph.D. (13)	4,672,862	8.8%
Kurt von Emster, CFA (14)	159,198	*
Entities Associated With Alta BioPharma (15)	4,672,862	8.8%
Biotech Turnaround Fund (BTF) B.V. (16)	4,436,869	8.4%
Johnson & Johnson Development Corporation (17)	8,630,540	16.3%
Entities Associated With The Bay City Capital (18)	3,711,978	7.0%
Entities Associated With Venrock Associates (19)	4,672,862	8.8%
Entities Associated With Versant Venture Capital (20)	4,672,861	8.8%
Entities Associated with VantagePoint (21)	3,828,373	7.2%
Entities Associated with The KBC Funds (22)	3,148,588	5.9%
Novo A/S (23)	2,811,008	5.3%
Directors and officers as a group (total of 13 persons) (24)	32,494,000	55.9%

* Less than 1%.

(1) Beneficial ownership is calculated based on 53,020,963 shares of common stock issued and outstanding, including shares issuable upon conversion of preferred stock, as of August 1, 2013. The number of shares of preferred stock are included as they are immediately convertible into shares of common stock and vote together with the common stock on matters put to vote of the holders of common stock on an as-if-converted basis; there are currently only 466,681 shares of common stock outstanding excluding shares issuable upon conversion of the preferred stock. The number of shares beneficially owned by a person also includes shares of common stock underlying options or warrants held by that person that are currently exercisable or exercisable within 60 days of August 1, 2013. The shares issuable pursuant to the exercise of those options or warrants are deemed outstanding for computing the percentage ownership of the person holding those options and warrants but are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.

(2) Consists of shares issuable upon conversion of 36,460 shares of Series E-1 preferred stock, and shares issuable upon options to acquire 2,566,947 shares of common stock exercisable within 60 days of August 1, 2013.

(3) Includes shares issuable upon options to acquire 680,208 shares of common stock exercisable within 60 days of August 1, 2013.

(4) Includes shares issuable upon options to acquire 368,304 shares of common stock exercisable within 60 days of August 1, 2013.

(5) Includes shares issuable upon options to acquire 345,746 shares of common stock exercisable within 60 days of August 1, 2013.

(6) Consists of 1,750 shares of common stock outstanding and includes shares issuable upon options to acquire 381,679 shares of common stock exercisable within 60 days of August 1, 2013.

(7) Includes shares issuable upon options to acquire 278,612 shares of common stock exercisable within 60 days of August 1, 2013.

(8) Consists of 115,000 shares of common stock outstanding and includes shares issuable upon options to acquire 332,459 shares of common stock exercisable within 60 days of August 1, 2013.

(9) Includes shares held by Biotech Turnaround Fund (BTF) B.V. See Note 16. Mr. Converse disclaims beneficial ownership of the shares held by Biotech Turnaround Fund (BTF) B.V., except to the extent of his ability to direct the voting or disposition of such shares or his pecuniary interest therein.

(10) Includes shares held by the Venrock Funds. See Note 19. Mr. Evnin disclaims beneficial ownership of the shares held by the Venrock Funds, except to the extent of his ability to direct the voting or disposition of such shares or his pecuniary interest therein

(11) Includes shares held by the Bay City Capital Funds. See Note 18. Mr. Goldfischer disclaims beneficial ownership of the shares held by the Bay City Capital Funds, except to the extent of his ability to direct the voting or disposition of such shares or his pecuniary interest therein.

(12) Includes shares held by the Versant Funds. See Note 20. Mr. Kumar disclaims beneficial ownership of the shares held by the Versant Funds, except to the extent of his ability to direct the voting or disposition of such shares or his pecuniary interest therein.

(13) Includes shares held by the Alta BioPharma. See Note 15. Mr. Penhoet disclaims beneficial ownership of the shares held by the Alta BioPharma, except to the extent of his ability to direct the voting or disposition of such shares or his pecuniary interest therein.

(14) Consists of shares issuable upon conversion of 12,077 shares of Series D-1 preferred stock held by The Konrad Hans von Emster III and Elizabeth F. von Emster Revocable Trust dated January 18, 2005 and 36,460 shares issuable upon conversion of Series E-1 preferred stock and shares issuable upon options to acquire 106,350 shares of common stock exercisable within 60 days of August 1, 2013.

(15) Consists of shares issuable upon conversion of 209,939 shares of Series B-1 preferred stock, 35,411 shares of Series D-1 preferred stock and 29,156 shares of Series E-1 preferred stock held by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, shares issuable upon conversion of 3,125,993 shares of Series B-1 preferred stock, 527,264 shares of Series D-1 preferred stock, and 434,135 shares of Series E-1

preferred stock, held by Alta BioPharma Partners III, L.P., shares issuable upon conversion of 77,038 shares of Series B-1 preferred stock, 12,994 shares of Series D-1 preferred stock and 10,698 shares of Series E-1 preferred stock held by Alta Embarcadero BioPharma Partners III, LLC. The address of the Alta BioPharma entities is: One Embarcadero Center, Suite 3700, San Francisco, CA 94111.

(16) Consists of shares issuable upon conversion of 3,412,969 shares of Series B-1 preferred stock and 750,000 shares of Series D-1 preferred stock. The address of Biotech Turnaround Fund (BTF) B.V. is: 2011 MP Haarlem, Netherlands.

(17) Consists of shares issuable upon conversion of 2,173,913 shares of Series C-1 preferred stock, 563,234 shares of Series D-1 preferred stock and 5,687,700 shares of Series E-3 preferred stock. The address of Johnson & Johnson Development Corporation is: 410 George St., New Brunswick, NJ 08901.

(18) Consists of shares issuable upon conversion of 558 shares of Series A-1 preferred stock, 183,532 shares of Series B-1 preferred stock, 15,346 shares of Series D-1 preferred stock, and 22,814 shares of Series E-1 preferred stock, held by The Bay City Capital Fund II, Co-Investment Fund, L.P., and shares issuable upon conversion of 8,532 shares of Series A-1 preferred stock, 2,806,378 shares of Series B-1 preferred stock, 234,654 shares of Series D-1 preferred stock, and 348,855 shares of Series E-1 preferred stock, held by The Bay City Capital Fund II, L.P. The address of The Bay City Capital Funds is: 750 Battery St., Suite 400, San Francisco, CA 94111.

(19) Consists of shares issuable upon conversion of 2,778,157 shares of Series B-1 preferred stock, 468,595 shares of Series D-1 preferred stock, and 385,828 shares of Series E-1 preferred stock, held by Venrock Associates IV, L.P., shares issuable upon conversion of 68,259 shares of Series B-1 preferred stock, 11,513 shares of Series D-1 preferred stock, and 9,479 shares of Series E-1 preferred stock, held by Venrock Entrepreneurs Fund IV, L.P., and shares issuable upon conversion of 566,553 shares of Series B-1 preferred stock, 95,561 shares of Series D-1 preferred stock, and 78,682 shares of Series E-1 preferred stock, held by Venrock Partners, L.P. The address of The Venrock Funds is: 5340 Hillview Avenue, Palo Alto, CA 94304.

(20) Consists of shares issuable upon conversion of 63,010 shares of Series B-1 preferred stock, 10,628 shares of Series D-1 preferred stock, and 8,750 shares of Series E-1 preferred stock, held by Versant Affiliates Fund II-A, L.P., shares issuable upon conversion of 29,675 shares of Series B-1 preferred stock, 5,005 shares of Series D-1 preferred stock, and 4,121 shares of Series E-1 preferred stock, held by Versant Side Fund II, L.P., and shares issuable upon conversion of 3,320,284 shares of Series B-1 preferred stock, 560,036 shares of Series D-1 preferred stock, and 461,118 shares of Series E-1 preferred stock, held by Versant Venture Capital II, L.P. The address of The Versant Funds is: 3000 Sand Hill Rd., Building 4, Suite 210, Menlo Park, CA 94025.

(21) Consists of shares issuable upon conversion of 2,329,306 shares of Series B-1 preferred stock, 355,262 shares of Series D-1 preferred stock and 296,243 shares of Series E-1 preferred stock held by VantagePoint CDP Partners, LP, 153,573 shares of Series B-1 preferred stock held by CDP Capital Technology US Ventures Fund 2002 and 383,959 shares of Series B-1 preferred stock, 81,984 shares of Series D-1 preferred stock and 68,363 shares of Series E-1 preferred stock held by CDP Capital-Technology Ventures U.S. Fund 2002 L.P. The address of VantagePoint is: 1001 Bayhill Dr., Suite 300, San Bruno, CA 94066.

(22) Consists of shares issuable upon conversion of 238,903 shares of Series B-1 preferred stock held by KBC Equity Fund-Biotechnology, 477,806 shares of Series B-1 preferred stock held by KBC Equity Fund-Pharma and 1,672,321 shares of Series B-1 preferred stock held by KBC Private Equity NV. The address of The KBC Funds is: Havenlaan 121, Brussels, Belgium 1080.

(23) Consists of shares issuable upon conversion of 2,047,781 shares of Series B-1 preferred stock, 345,401 shares of Series D-1 preferred stock and 291,686 shares of Series E-1 preferred stock. The address of Novo A/S is: 2880 Bagsvaerd, Denmark.

(24) Consists of shares held by each executive officer and director including the shares described in footnotes 2 through 14 above.

Beneficial Ownership of Series A-1 Preferred Stock

The following table sets forth information regarding the beneficial ownership of CymaBay Series A-1 preferred stock as of August 1, 2013, by (1) each of its directors and executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay Series A-1 preferred stock and (3) all of CymaBay's directors as a group. No executive officers own any Series A-1 preferred stock. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
Booth & Co. (2)	263,194	26.0%
Charter Legacy LLC (3)	534,563	52.8%
Warner Lambert Co. (4)	52,571	5.2%
Directors and officers as a group (total of 0 persons)	0	0%

(1) Beneficial ownership is calculated based on 1,012,389 shares of Series A-1 preferred stock issued and outstanding. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.
(2) The address of Booth & Co. is: c/o Northern Trust Company, P.O. Box 92303, Chicago, Il 60675.
(3) The address of Charter Legacy LLC is: 525 University Ave., Suite 1400, Palo Alto, CA 94301.
(4) The address of Warner Lambert Co. is: 201 Tabor Rd., Morris Plains, NJ 07950.

Beneficial Ownership of Series B-1 Preferred Stock

The following table sets forth information regarding the beneficial ownership of CymaBay Series B-1 preferred stock as of August 1, 2013, by (1) each of its directors and executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay Series B-1 preferred stock and (3) all of CymaBay's directors as a group. No executive officers own any Series B-1 preferred stock. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
Entities Associated With Alta BioPharma (2)	3,412,970	11.5%
Biotech Turnaround Fund (BTF) B.V. (3)	3,412,969	11.5%
Charter Legacy, LLC (4)	1,626,758	5.5%
Entities Associated with The KBC Fund (5)	2,389,030	8.1%
Novo A/S (6)	2,047,781	6.9%
Pictet Funds – (LUX) (7)	1,535,835	5.2%
Entities Associated with The Bay City Capital Funds (8)	2,989,919	10.1%
Entities Associated with VantagePoint (9)	2,866,838	9.7%
Entities Associated With Venrock Associates (10)	3,412,969	11.5%
Entities Associated With Versant Venture Capital (11)	3,412,969	11.5%
Anthony B. Evnin, Ph.D. (12)	3,412,969	11.5%
Edward E. Penhoet, Ph.D. (13)	3,412,970	11.5%
Eric Converse (14)	3,412,969	11.5%
Carl Goldfischer, M.D. (15)	2,989,919	10.1%
Hari Kumar, Ph.D. (16)	3,412,969	11.5%
Directors and officers as a group (total of 5 persons) (17)	16,641,796	56.1%

(1) Beneficial ownership is calculated based on 29,671,222 shares of Series B-1 preferred stock issued and outstanding. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.

(2) Consists of 209,939 shares held by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, 3,125,993 shares held by Alta BioPharma Partners III, L.P., and 77,038 shares held by Alta Embarcadero BioPharma. The address of the Alta BioPharma entities is: One Embarcadero Center, Suite 3700, San Francisco, CA 94111

(3) The address of Biotech Turnaround Fund (BTF) B.V. is: 2011 MP Haarlem, Netherlands.

(4) The address of Charter Legacy, LLC is: 525 University Ave., Suite 1400, Palo Alto, CA 94301

(5) Consists of 238,903 shares held by KBC Equity Fund-Biotechnology, 447,806 shares held by KBC Equity Fund-Pharma, 1,672,321 shares held by KBC Private Equity NV. The address of The KBC Fund entities is: Havenlaan 121, Brussels, Belgium 1080.

(6) The address of Novo A/S is: 2880 Bagsvaerd, Denmark.

(7) The address of Pictet Funds – (LUX) is: 60, route des Acacias,CH-1211, Geneva 73, Switzerland.

(8) Consists of 183,532 shares held by The Bay City Capital Fund II, Co-Investment Fund, L.P., and 2,806,387 shares held by The Bay City Capital Fund II, L.P. The address of The Bay City Capital Fund entities is: 750 Battery St., Suite 400, San Francisco, CA 94111.

(9) Consists of 2,329,306 shares held by VantagePoint CDP Partners, LP, 153,573 shares held by CDP Capital Technology US Ventures Fund 2002 and 383,959 shares held by CDP Capital-Technology Ventures U.S. Fund 2002 L.P. The address of VantagePoint is: 1001 Bayhill Dr., Suite 300, San Bruno, CA 94066.

(10) Consists of 2,778,157 shares held by Venrock Associates IV, L.P., 68,259 shares held by Venrock Entrepreneurs Fund IV, L.P., and 566,553 shares held by Venrock Partners, L.P. The address of The Venrock Funds is: 3340 Hillview Avenue, Palo Alto, CA. 94304.
(11) Consists of 63,010 shares held by Versant Affiliates Fund II-A, L.P., 29,675 shares held by Versant Side Fund II, L.P., and 3,320,284 shares held by Versant Venture Capital II, L.P. The address of The Versant Funds is: 3000 Sand Hill Rd., Building 4, Suite 210, Menlo Park, CA 94025.
(12) Includes the shares held by the Venrock Funds. See Note 10.
(13) Includes the shares held by Alta BioPharma. See footnote 2.
(14) Includes the shares held by Biotech Turnaround Fund (BTF) B.V. See footnote 3.
(15) Includes the shares held by The Bay City Capital Fund. See footnote 8.
(16) Includes the shares held by The Versant Funds. See footnote 11.
(17) Includes the shares deemed beneficially owned by the directors listed in footnotes 12-16.

Beneficial Ownership of Series C-1 Preferred Stock

The following table sets forth information regarding the beneficial ownership of CymaBay Series C-1 preferred stock as of August 1, 2013, by (1) each of its directors and executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay Series C-1 preferred stock and (3) all of CymaBay's directors as a group. No executive officers own any Series C-1 preferred stock. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
Johnson & Johnson Development Corporation (2)	2,173,913	100%

(1) Beneficial ownership is calculated based on 2,173,913 shares of Series C-1 preferred stock issued and outstanding. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.
(2) The address of Johnson & Johnson Development Corporation is: 410 George St., New Brunswick, NJ 08901.

Beneficial Ownership of Series D-1 Preferred Stock

The following table sets forth information regarding the beneficial ownership of CymaBay Series D-1 preferred stock as of August 1, 2013, by (1) each of its directors and executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay Series D-1 preferred stock and (3) all of CymaBay's directors as a group. No executive officers own any Series D-1 preferred stock. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
AllianceBernstein Venture Fund I, L.P. (2)	1,000,000	12.5%
Entities Associated With Alta BioPharma (3)	575,669	7.2%
Biotech Turnaround Fund (BTF) B.V. (4)	750,000	9.4%
Entities Associated With Deerfield (5)	750,000	9.4%
Entities Associated with The DGAM Funds (6)	466,006	5.8%
Johnson & Johnson Development Corporation (7)	563,234	7.1%
Lobstercrew & Co. (8)	500,000	6.3%
Entities Associated with VantagePoint (9)	437,246	5.5%
Entities Associated With Venrock Associates (10)	575,669	7.2%
Entities Associated With Versant Venture Capital (11)	575,669	7.2%
Kurt von Emster, CFA (12)	12,077	*
Anthony B. Evnin, Ph.D. (13)	575,669	7.2%
Edward E. Penhoet, Ph.D. (14)	575,669	7.2%
Eric Converse (15)	750,000	9.4%
Hari Kumar, Ph.D. (16)	575,669	7.2%
Directors and officers as a group (total of 5 persons) (17)	2,489,084	31.2%

* Less than 1%.

(1) Beneficial ownership is calculated based on 7,974,997 shares of Series D-1 preferred stock issued and outstanding. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.

(2) The address of AllianceBernstein Venture Fund I, L.P. is: 1345 Avenue of the Americas, New York, NY 10105

(3) Consists of 35,411 shares held by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, 527,264 shares held by Alta BioPharma Partners III, L.P., and 12,994 shares held by Alta Embarcadero BioPharma. The address of the Alta BioPharma entities is: One Embarcadero Center, Suite 3700, San Francisco, CA 94111

(4) The address of Biotech Turnaround Fund (BTF) B.V. is: 2011 MP Haarlem, Netherlands.

(5) Consists of 250,000 shares held by Deerfield Special Situations Fund, LP, and 500,000 shares held by Deerfield Special Situations International Master Fund, L.P. The address of the Deerfield entities is: 780 Third Ave., 37th Floor, New York, NY 10017.

(6) Consists of 395,674 shares held by DGAM Alternative Strategy Fund II SPC CELL A, and 70,332 shares held by DGAM Alternative Strategy Fund LP. The address of The DGAM Funds is: c/o Desjardins Global Asset Management, Florent Salmon, 1 Complexe Desjardins, South Tower, 25th floor, Montreal, Quebec QCH5B183.

(7) The address of Johnson & Johnson Development Corporation is: 410 George St., New Brunswick, NJ 08901.

(8) The address of Lobstercrew & Co. is: c/o T. Rowe Price Associates, Inc., 100 East Pratt St., Baltimore, MD 21202.
(9) Consists of 355,262 shares held by VantagePoint CDP Partners, LP and 81,984 shares held by CDP Capital-Technology Ventures U.S. Fund 2002 L.P. The address of VantagePoint is: 1001 Bayhill Dr., Suite 300, San Bruno, CA 94066.
(10) Consists of 468,595 shares held by Venrock Associates IV, L.P., 11,513 held by Venrock Entrepreneurs Fund IV, L.P., and 95,561 shares held by Venrock Partners, L.P. The address of The Venrock Funds is: 3340 Hillview Avenue, Palo Alto, CA 94304.
(11) Consists of 10,628 shares held by Versant Affiliates Fund II-A, L.P., 5,005 shares held by Versant Side Fund II, L.P., and 560,036 shares held by Versant Venture Capital II, L.P. The address of The Versant Funds is: 3000 Sand Hill Rd., Building 4, Suite 210, Menlo Park, CA 94025.
(12) Consists of 12,077 shares held by The Konrad Hans von Emster III and Elizabeth F. von Emster Revocable Trust dated January 18, 2005 for which Mr. von Emster serves as trustee with sole power of voting and disposition. The address for The Konrad Hans von Emster III and Elizabeth F. von Emster Revocable Trust dated January 18, 2005 is: 1647 Ralston Ave. Belmont CA 94002.
(13) Includes the shares held by The Venrock Funds. See footnote 10.
(14) Includes the shares held by Alta BioPharma. See footnote 3.
(15) Includes the shares held by Biotech Turnaround Fund (BTF) B.V. See footnote 4.
(16) Includes the shares held by The Versant Funds. See footnote 11.
(17) Includes the shares deemed beneficially owned by the directors listed in footnotes 12-16.

Beneficial Ownership of Series E-1 Preferred Stock

The following table sets forth information regarding the beneficial ownership of CymaBay Series E-1 preferred stock as of August 1, 2013, by (1) each of its directors and executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay Series E-1 preferred stock and (3) all of CymaBay's directors as a group. No executive officers own any Series E-1 preferred stock. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
Harold Van Wart, Ph.D.	36,460	*
Entities Associated With Alta BioPharma (2)	473,989	15.2%
KBC Private Equity NV (3)	262,119	8.4%
Novo A/S (4)	291,686	9.3%
Pictet Funds – (LUX) (5)	170,648	5.5%
Entities Associated with The Bay City Capital Funds (6)	371,669	11.9%
Entities Associated with VantagePoint (7)	364,606	11.7%
Entities Associated With Venrock Associates (8)	473,989	15.2%
Entities Associated With Versant Venture Capital (9)	473,989	15.2%
Kurt von Emster, CFA (10)	36,460	*
Anthony B. Evnin, Ph.D. (11)	473,989	15.2%
Edward E. Penhoet, Ph.D. (12)	473,989	15.2%
Carl Goldfischer, M.D. (13)	371,669	11.9%
Hari Kumar, Ph. D. (14)	473,989	15.2%
Directors and officers as a group (total of 5 persons) (15)	1,866,556	59.8%

* Less than 1%.

(1) Beneficial ownership is calculated based on 3,121,953 shares of Series E-1 preferred stock issued and outstanding. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.
(2) Consists of 29,156 shares held by Alta BioPharma Partners III GmbH & Co. Beteiligungs KG, 434,135 shares held by Alta BioPharma Partners III, L.P., and 10,698 shares held by Alta BioPharma Partners III, LLC. The address of the Alta BioPharma entities is: One Embarcadero Center, Suite 3700, San Francisco, CA 94111.
(3) The address of KBC Private Equity NV is: Havenlaan 121, Brussels, Belgium 1080.
(4) The address of Nova A/S is: 2880 Bagsvaerd, Denmark.
(5) The address of Pictet Funds – (LUX) is: 60, route des Acacias,CH-1211, Geneva 73, Switzerland.
(6) Consists of 22,814 shares held by The Bay City Capital Fund II, Co-Investment Fund, L.P., and 348,855 shares held by The Bay City Capital Fund II, L.P. The address of The Bay City Capital Fund entities is: 750 Battery St., Suite 400, San Francisco, CA 94111.
(7) Consists of 296,243 shares held by VantagePoint CDP Partners, LP and 68,363 shares held by CDP Capital-Technology Ventures U.S. Fund 2002 L.P. The address of VantagePoint is: 1001 Bayhill Dr., Suite 300, San Bruno, CA 94066.
(8) Consists of 385,828 held by Venrock Associates IV, L.P., 9,479 held by Venrock Enterpreneurs Fund IV, L.P., and 78,682 shares held by Venrock Partners, L.P. The address of The Venrock Funds is: 30 Rockefeller Plaza, Room 5508, New York, NY 10112.
(9) Consists of 8,750 shares held by Versant Affiliates Fund II-A, L.P., 4,121 shares held by Versant Side Fund II, L.P., and 461,118 shares held by Versant Venture Capital II, L.P. The address of The Versant Funds is: 3000 Sand Hill Rd., Building 4, Suite 210, Menlo Park, CA 94025.
(10) Consists of 36,460 shares held by The Konrad Hans von Emster Trust for which Mr. von Emster serves as trustee with sole power of voting and disposition. The address for The Konrad Hans von Emster Trust is: 1647 Ralston Ave. Belmont CA 94002.
(11) Includes the shares held by the Venrock Funds. See footnote 8.
(12) Includes the shares held by Alta BioPharma. See footnote 2.
(13) Includes the shares held by The Bay City Capital Fund. See footnote 6.
(14) Includes the shares held by The Versant Funds. See footnote 9.
(15) Includes the shares deemed beneficially owned by the directors listed in footnotes 10-14.

Beneficial Ownership of Series E-3 Preferred Stock

The following table sets forth information regarding the beneficial ownership of CymaBay Series E-3 preferred stock as of August 1, 2013, by (1) each of its directors and executive officers, (2) each person that beneficially owns more than 5% of the outstanding shares of CymaBay Series E-3 preferred stock and (3) all of CymaBay's directors as a group. No executive officers own any Series E-3 preferred stock. Unless otherwise indicated, the address for each of the beneficial owners in the table below is c/o CymaBay Therapeutics, Inc., 3876 Bay Center Place, Hayward, California 94545.

Name of Beneficial Owner (1)	Amount and Nature of Beneficial Ownership	Percentage of Class
Johnson & Johnson Development Corporation (2)	5,687,700	100%

(1) Beneficial ownership is calculated based on 5,687,700 shares of Series E-3 preferred stock issued and outstanding. Unless otherwise indicated, the persons and entities named in the table have sole voting and sole investment power with respect to the shares set forth opposite that person's name, subject to community property laws, where applicable.
(2) The address of Johnson & Johnson Development Corporation is: 410 George St., New Brunswick, NJ 08901

ITEM 5. DIRECTORS AND EXECUTIVE OFFICERS.

The following table sets forth information regarding CymaBay's executive officers, directors, key employees and consultants.

Management Team

Name	Age	Position Held With CymaBay
Executive Officers		
Harold Van Wart, Ph.D.	65	President, Chief Executive Officer & Director
Sujal Shah	40	Acting Chief Financial Officer
Mary Jean Stempien, MS, MD, FACP	60	Interim Chief Medical Officer
Charles A. McWherter, Ph.D.	58	Senior Vice President, Research and Preclinical Development
Bonnie A. Charpentier, Ph.D.	61	Vice President, Regulatory Affairs and Quality
Robert L. Martin, Ph.D.	50	Vice President, Portfolio and Project Management
Patrick J. O'Mara	52	Vice President, Business Development
Diana Petty	62	Vice President, Human Resources and Administration
Directors		
Louis G. Lange, M.D., Ph.D.	65	Chairman of the Board
Eric Converse	47	Director
Anthony B. Evnin, Ph.D.	72	Director
Carl Goldfischer, M.D.	55	Director
Hari Kumar, Ph.D.	57	Director
Edward E. Penhoet, Ph.D.	72	Director
Harold Van Wart, Ph.D.	65	Director
Kurt von Emster, CFA	45	Director

Biographical Information

Executive Officers

Harold E. Van Wart, Ph.D. has served as CymaBay's Chief Executive Officer since 2003, a member of its board of directors since January 2003, and President since April 2001. He served as Chief Operating Officer from December 2002 to January 2003 and Senior Vice President, Research and Development from October 2000 to December 2002. From 1999 to 2000, Dr. Van Wart was vice president and therapy head for arthritis and fibrotic diseases at Roche Biosciences, a biopharmaceutical company. From 1992 to 1999, he was vice president and director of the institute of biochemistry and cell biology at Syntex Corporation, a biopharmaceutical company acquired by Roche Biosciences in 1994. From 1978 to 1992, Dr. Van Wart served on the faculty of Florida State University. Dr. Van Wart holds a Ph.D. from Cornell University and a B.A. from SUNY Binghamton. He currently serves on the Emerging Companies and Health Section Governing Boards of the Biotechnology Industry Organization (BIO), as well as on its board of directors.

Sujal Shah has served as our acting Chief Financial Officer since June 27, 2012. From 2010 to 2012 Mr. Shah served as Director, Health Care Investment Banking Group for Citigroup. From 2004 to 2010 Mr. Shah served as Vice President, Health Care Investment Banking Group for Credit-Suisse. Mr. Shah received an MBA from Carnegie Mellon University – Tepper School of Business in 2004 and a MS from Northwestern University in Biomedical Engineering in 1997.

Charles A. McWherter, Ph.D. has served as our Senior Vice President, Research and Preclinical Development since July 2007. From 2003 to 2007, he served as Vice President and head of the cardiovascular

therapeutics areas of Pfizer Inc., a biopharmaceutical company. From 2001 to 2003, Dr. McWherter served as Vice President of Drug Discovery at Sugen, Inc., a biopharmaceutical company acquired by Pfizer Inc. in 2003. Dr. McWherter obtained his Ph.D. from Cornell University.

Bonnie A. Charpentier, Ph.D. joined CymaBay in 2007 as Vice President of Regulatory Affairs, and became Vice President of Regulatory and Quality later that year. She previously was Vice President of Regulatory and Quality at Genitope Corp. from 2001 to 2006. From 1995 to 2001, Dr. Charpentier held regulatory positions at Roche Global Development, a division of F. Hoffman-La Roche Ltd., including serving as Vice President and Regulatory Site Head in Palo Alto, CA. From 1991 to 1995 she held regulatory positions of increasing responsibility at Syntex Corporation. Dr. Charpentier obtained her Ph.D. in Biology from the University of Houston. She currently serves on the Board of Directors of the American Chemical Society.

Mary Jean Stempien, M.S., M.D., F.A.C.P. has served as our acting Chief Medical Officer since June 23, 2012. Dr. Stempien has over 16 years of drug development experience obtained at Syntex Corp, Roche Pharmaceuticals, Tularik, Inc. and Cerimon Pharmaceuticals. At Tularik and Cerimon, she was Vice President, Clinical Development, with responsibility for clinical development projects in several therapeutic areas (oncology, autoimmune disorders, inflammation, pain). Her development work at Roche and Syntex contributed to marketing approvals of two antiviral agents, ganciclovir (Cytovene®) and valganciclovir (Valcyte®), as well as the transplant rejection agent mycophenolate mofetil (CellCept®). She has been directly involved in five successful NDAs (or sNDAs) and 4 successful FDA Advisory Committee hearings. Dr. Stempien has a B.S. in Pharmacy from University of Connecticut, an M.S. in Pharmaceutical Chemistry from UCSF, and an M.D. from University of Massachusetts. Dr. Stempien is board-certified in Internal Medicine, and is a Fellow of the American College of Physicians.

Robert L. Martin, Ph.D. has served as our Vice President of Nonclinical Development and Project Management since 2008. Dr. Martin served as our Sr. Director of Preclinical Development and Project Management from 2006 to 2008 and our Director of Preclinical Development and Project Management from 2004 to 2006. From 1994 to 2004, Dr. Martin served in various positions with Roche Palo Alto, a division of F. Hoffman-La Roche Ltd. Dr. Martin obtained his Ph.D. in Biochemistry from the University of California, Davis.

Patrick J. O'Mara joined CymaBay in 1991 and has served CymaBay in a variety of operational and business development positions. He became Vice President for Business Development in August 2006. Before joining CymaBay, Mr. O'Mara worked at Thymax Corporation and Thomas Research Corp. Mr. O'Mara received a B.A. in Biochemistry from the University of California, Berkeley.

Diana Petty joined CymaBay as Vice President of Human Resources and Administration in September 2006. Prior to joining CymaBay, Ms. Petty managed her own human resources consulting firm for 15 years in the biotech and high tech industries. Earlier in her career, she held leadership positions in Human Resources at 3M Corporation's Life Science Division and at SmithKline Corporation. Ms. Petty obtained a M.S. in Human Resources Development from Villanova University.

Directors

Louis G. Lange, M.D., Ph.D. has been a member of our Board of Directors since November 2003 and has been chairman of the board since October 2009. Dr. Lange was elected to the Board of Directors due to his significant drug development experience and leadership roles held in various companies and academic institutions. Dr. Lange has 22 years experience in academic medicine at Harvard and Washington University, where he served as Chief of Cardiology and Professor of Medicine at Jewish Hospital from 1985-1992 and was one of the first academicians in molecular cardiology. He founded CV Therapeutics based on this broad field and as Chairman, CEO and Chief Scientific Officer, led the IPO in 1996 and the overall pipeline development and the initiatives for U.S. FDA and European EMEA approval for Ranexa®, a first-in-class late sodium channel blocker and the first anti-anginal drug class approved in 30 years in the U.S. He also led the approval of Lexiscan®, a

first-in-class adenosine A2a receptor agonist for use in myocardial perfusion imaging studies. Dr. Lange oversaw the commercial success of CV Therapeutics and its sale to Gilead in 2009 for $1.4 billion dollars. As a member of the Board of Trustees at the University of Rochester since 1998 and as Chair of the Health Affairs committee that oversaw all of the medical operations for five years, Dr. Lange has been part of the leadership team for strategic re-invigoration of the medical center with construction of two research buildings and recruitment of over 100 faculty members. As a member of BIO Board of Directors (the trade organization of biotech companies) from 1999 to 2009, Dr. Lange led the largest committee of member companies for two years and was picked as one of two biotech executives to attend the ceremonies at the White House for the signing of the Bioterrorism bill in 2004. Dr. Lange has been a General Partner at Asset Management since 2009; remains a senior advisor to Gilead and serves on numerous other public and private Boards in both the non-profit and for-profit arena.

Eric Converse has been a member of our Board of Directors since April 2011. Mr. Converse was elected to the Board of Directors as a result of Nedamco's investment in Biotech Turnaround Fund (BTF) B.U. which invested in CymaBay and his significant management experience. Mr. Converse has been involved with Nedamco Capital, a privately-held, international investment company, since 2002. He has over 20 years of hands-on management experience working with young, growing companies. He represented Nedamco Capital's interest as CEO of Oblicore, which was subsequently acquired by CA Technologies. Prior to joining Nedamco Capital, Mr. Converse was CEO of Oneswoop.com which was acquired by Norwich Union Consumer Products (Aviva). Earlier in his career, Mr. Converse worked for Nedamco North America Corporation, a U.S.-based global technology development company, where he lead the development of new markets (primarily India and China) and played an active role in its successful sale. Mr. Converse received his B.S. degree from Michigan State University.

Anthony B. Evnin, Ph.D. has been a member of our Board of Directors since November 2004. Dr. Evnin was elected to the Board of Directors as a result of Venrock's investment in the company and his in depth knowledge of the pharmaceutical industry. Dr. Evnin is a Partner of Venrock, a venture capital firm, which he joined in 1974. Dr. Evnin is a Director of AVEO Pharmaceuticals, Inc. and Infinity Pharmaceuticals, Inc. as well as a number of private companies, including Acceleron Pharma, Inc., and Constellation Pharmaceuticals, Inc. Dr. Evnin was formerly a Director of Athena Neurosciences, Centocor, Genetics Institute, IDEC Pharmaceuticals, IDEXX Laboratories, Ribozyme Pharmaceuticals, and Sepracor, among others. He serves as a Trustee of The Rockefeller University, as a Trustee of The Jackson Laboratory, as a Member of the Boards of Overseers and Managers of Memorial Sloan-Kettering Cancer Center, as a Member of the Board of Directors of the New York Genome Center, as a Member of the Board of Directors of the Albert and Mary Lasker Foundation, and as a Trustee Emeritus of Princeton University. Dr. Evnin received an A.B. from Princeton University in 1962 and a Ph.D. in Chemistry from the Massachusetts Institute of Technology in 1966.

Carl Goldfischer, M.D. has been a member of our Board of Directors since August 2003. Dr. Goldfischer was elected to the Board of Directors as a result of Bay City Capital's investment in the company and his in-depth knowledge of the pharmaceutical industry. Dr. Goldfischer is an investment partner and managing director of Bay City Capital, serving as a member of the board of directors and executive committee, and has been with the firm since December 2000. His background includes extensive public and private investment and transaction work, as well as clinical trial development knowledge. Prior to joining Bay City Capital, Dr. Goldfischer was chief financial officer of ImClone Systems. Previously, he was a research analyst with the Reliance Insurance Company, helping to establish its portfolio and presence in the health care investment community. Dr. Goldfischer is a member of the board of directors for BrainCells, EnteroMedics and Epizyme. Dr. Goldfischer received an M.D. with honors in scientific research from Albert Einstein College of Medicine and a B.A. from Sarah Lawrence College.

Hari Kumar, Ph.D. has been a member of our Board of Directors since September 2012. Dr. Kumar was elected to the Board of Directors as a result his in depth knowledge and experience in the pharmaceutical industry. Dr. Kumar has over 25 years of pharmaceutical experience. Dr. Kumar spent a number of years at Hoffmann La Roche starting in basic research, moving to sales and marketing, lifecycle management and finally

to business development. During the period 1996 through 1999, Dr. Kumar moved to Eisai Ltd, as their European Marketing Director before returning to Roche in 1999. He moved to Amira Pharmaceuticals, Inc in 2007 as Chief Business Officer and after Amira's acquisition in 2011, became Chief Executive Officer of Panmira Pharmaceuticals LLC. In his time, Dr. Kumar has overseen the launch of the immunosuppressive, CellCept®, the Alzheimer's drug, Aricept® and gastric ulcer drug, Aciphex®. He was also involved in guiding cross functional teams at Roche for the Transplantation franchise which resulted in the growth of the products in the franchise to achieve billion dollar sales. In his role as lead in-licensing person for inflammation at Roche, he identified and partnered valuable products that have enhanced Roche's portfolio. He was instrumental in partnerships with Isotechnika, Biotie, Biocryst and Actellion. Experience in almost all aspects of the pharmaceutical industry has given Dr. Kumar a unique understanding on what makes a successful drug. At Amira, Dr. Kumar led the process that resulted in the acquisition by Bristol Myers Squibb in 2011. He has since then led the spin out company, Panmira Pharmaceuticals LLC. Having trained as an immunologist at University College London where he completed his Ph.D. under the supervision of Prof N.A. Mitchison, Dr. Kumar completed a postdoctoral fellowship at Tufts New England Medical Center in Boston and another fellowship at the Marie Curie Cancer Research Centre in UK.

Edward E. Penhoet, Ph.D. has been a member of our Board of Directors since November 2004. Dr. Penhoet was elected to the Board of Directors as a result of Alta Partner's investment in the company and his in depth knowledge and experience in the pharmaceutical industry. Dr. Penhoet joined Alta in 2000 as a Director and has been full time at Alta since 2008. He currently serves on the board of directors of Immune Design and Scynexis. A co-founder of Chiron, Dr. Penhoet served as Chiron's President and Chief Executive Officer from its formation in 1981 until April 1998. He served as Vice-Chair of the governing board of the Independent Citizens Oversight Committee for the California Institute of Regenerative Medicine (CIRM) from 2005 to 2010, and served as the President of the Gordon and Betty Moore Foundation from 2004 to 2008. Dr. Penhoet was recently appointed to President Obama's Council of Advisors on Science and Technology (PCAST). PCAST is an advisory group comprised of 20 of the nation's leading scientists and engineers who directly advise the President and the Executive Office of the President. PCAST makes policy recommendations in the many areas where understanding of science, technology, and innovation is key to strengthening our economy and forming policy that works for the American people. For 10 years prior to founding Chiron, Dr. Penhoet was a faculty member of the Biochemistry Department of the University of California, Berkeley. Dr. Penhoet is the immediate past Dean of the School of Public Health at the University of California, Berkeley. He is a member of both the Institute of Medicine of the National Academies and the American Academy of Arts and Sciences. He has co-authored more than 50 scientific articles and papers.

Harold E. Van Wart, Ph.D. has served as CymaBay's Chief Executive Officer since 2003, a member of its board of directors since January 2003, and President since April 2001. Dr. Van Wart was elected to the Board of Directors as a result of his appointment to Chief Executive Officer. He served as Chief Operating Officer from December 2002 to January 2003 and Senior Vice President, Research and Development from October 2000 to December 2002. From 1999 to 2000, Dr. Van Wart was vice president and therapy head for arthritis and fibrotic diseases at Roche Biosciences, a biopharmaceutical company. From 1992 to 1999, he was vice president and director of the institute of biochemistry and cell biology at Syntex Corporation, a biopharmaceutical company acquired by Roche Biosciences in 1994. From 1978 to 1992, Dr. Van Wart served on the faculty of Florida State University. Dr. Van Wart holds a Ph.D. from Cornell University and a B.A. from SUNY Binghamton. He currently serves on the Emerging Companies and Health Section Governing Boards of BIO, as well as on its board of directors.

Kurt von Emster, CFA has been a member of our Board of Directors since April 2009. Dr. von Emster was elected to the Board of Directors as a result of MPM BioEquities Master Fund LP's investment in the company and his in depth knowledge of the pharmaceutical industry. Mr. von Emster is a co-founder and Managing Partner of venBio. He has been an institutional biotechnology and health care analyst and portfolio manager for 22 years. He is a member of the board of directors of Cytos AG, a former member of the board of Facet Biotech Corporation (sold to Abbott Laboratories in 2010) and Somaxon Pharmaceuticals (sold to Pernix Therapeutics in

2013), and a former board observer of Acceleron Pharma. Mr. von Emster's investment career started in 1989 at Franklin Templeton where he founded and managed several health and biotechnology funds in the 1990s, each achieving a 5-star Morningstar ranking. In 2000, he was managing over $2B in biotech and health care funds for Franklin Templeton. In 2001, Mr. von Emster became a General Partner at MPM Capital, a leading biotechnology private equity firm, and launched the MPM BioEquities Fund, a cross over public and private biotechnology hedge fund. He was the portfolio manager of this fund from inception in 2001 until his departure in 2009. He also co-founded the MPM Biogen Idec Strategic Fund during his tenure at MPM. Mr. von Emster is based in venBio's San Francisco office.

ITEM 6. EXECUTIVE COMPENSATION.

Summary Compensation Table

The following table shows information regarding the compensation earned during the fiscal year ending December 31, 2012, by (i) our Chief Executive Officer, (ii) our Senior Vice President, Research and Pre-clinical Development, (iii) our Chief Medical Officer, each of whom were serving as executive officers in 2012. The officers listed below are collectively referred to as the "Named Executive Officers" in this Form 10.

Name	Fiscal Year	Salary	Option/Stock Awards (1)	All Other Compensation	Total
Harold Van Wart, Ph.D. President and Chief Executive Officer	2012	$411,830	$ 26,353	$ 12,430(2)	$450,613
Charles A. McWherter Senior Vice President, Research and Pre-clinical Development	2012	$327,309	$ 11,400	$ 13,755(2)	$352,464
Raymond Urbanski Chief Medical Officer	2012	$151,574	$ 20,278	$ 193,555(2)(3)	$365,407
Bonnie Charpentier, Ph.D. Vice President, Regulatory and Quality	2012	270,097	$ 3,969	$ 19,462	$293,528

(1) The aggregate fair value of the equity compensation paid to our Named Executive Officers for the year ended December 31, 2012. The aggregate fair value is computed in accordance with FASB ASC Topic 718. See Note 11 to our consolidated financial statements contained in this report regarding assumptions underlying valuation of equity awards.

(2) Represents health insurance, group term life insurance, accidental death and dismemberment insurance, and disability insurance premiums paid by the Company.

(3) Represents $8,705 in health insurance, group term life insurance, accidental death and dismemberment insurance, and disability insurance premiums paid by the Company and $184,850 in payments made to Dr. Urbanski in connection with his separation from the Company in June, 2012 pursuant to a separation agreement.

Outstanding Equity Awards at Fiscal Year-End

The following table presents the outstanding equity awards held by each of the Named Executive Officers as of December 31, 2012. Stock options were granted pursuant to our 2003 Equity Incentive Plan (the "Plan").

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Harold Van Wart, Ph.D.	774,750	0	.38	1/11/2014
	28,500	0	.38	1/11/2014
	493,900	0	.38	01/06/2015
	100,000	0	.79	11/17/2015
	118,757	0	.50	6/4/2018
	440,103	0	.50	6/4/2018
	376,042	98,958	.20	1/9/2020
	80,208	269,792	.06	1/24/2022
Charles A. McWherter, Ph.D.	450,000	0	.50	6/4/2018
	118,750	31,250	.20	1/9/2020
	45,833	154,167	.06	1/24/2022
Raymond Urbanski, M.D.	650,000	650,000	0.16	10/04/2021
Bonnie Charpentier, Ph.D.	100,000	0	.50	3/25/2018
	19,500	0	.50	6/4/2018
	160,500	0	.50	6/4/2018
	52,866	13,912	.20	10/14/2019
	12,604	42,396	.06	1/24/2022

Employment Contracts and Termination of Employment and Change of Control Arrangements

Chief Executive Officer

CymaBay entered into an employment letter agreement with Dr. Harold Van Wart on March 1, 2004. The agreement letter was amended on October 10, 2007 in order to address the requirement of Section 409A of the Internal Revenue Code. Dr. Van Wart's employment agreement will continue until terminated by him or by the Company. Dr. Van Wart serves as Chief Executive Officer of the Company.

Base Salary, Bonus, Benefits: Dr. Van Wart received an annual base salary of $411,830 in FY 2012. In addition, Dr. Van Wart is eligible to earn an annual cash performance bonus, based upon achievement of annual performance goals and objectives set by the Board of Directors each, year, with a target bonus of 35% of his base salary. In addition, Dr. Van Wart is entitled to participate in any employee benefit plans that the Company may from time to time have in effect for its employees. Dr. Van Wart is also eligible to participate in an individual disability income protection plan. The Company reimbursed Dr. Van Wart for reasonable business expenses incurred in the discharge of duties in accordance with the general practices and policies of the Company and subject to the Company's annual expense budget.

Termination: Pursuant to the terms of the employment agreement, Dr. Van Wart entered into an at-will employment relationship with the Company. Either Dr. Van Wart or the Company may terminate the employment relationship at any time, with or without Cause and with or without advance notice. The Company may give Dr. Van Wart twelve (12) months of his base salary in effect as of his termination date. In addition, Dr. Van Wart is eligible to receive his potential annual discretionary bonus amount as if all performance targets established have been satisfied, pro-rated for the number of months elapsed in the year in which his employment terminates. Base salary and bonus severance will be paid in equal installments during the twelve (12) month

period following the termination date. Additionally, Dr. Van Wart is eligible to continue coverage of group health benefits under COBRA. The Company will pay premiums for COBRA coverage for up to 12 months following the termination date, provided that Dr. Van Wart does not attain full-time employment within this period. Upon termination, the vesting of Dr. Van Wart's stock options shall be accelerated such that the options are fully vested and exercisable upon the termination date and such stock options shall be exercisable for the remainder of their original term, without regard to termination of employment.

Termination for Cause: If Dr. Van Wart's employment is terminated for cause, he will receive only the portion of his base salary that has been earned and is then payable, but has not yet been paid.

Change in Control: For the purpose of Dr. Van Wart's employee agreement, "Change in Control" means an event or a series of related events (collectively, a "Transaction") wherein the stockholders of the Company immediately before the Transaction do not retain direct or indirect beneficial ownership of more than fifty percent (50%) of the total combined voting power of the outstanding securities of the Company or, in the case of a Transaction described as the sale, exchange or transfer of all or substantially all of the assets of the Company, the corporation or other business entity to which the assets of the Company were transferred. At the close of a Change in Control, Dr. Van Wart's outstanding stock options shall become vested and exercisable with respect to fifty percent (50%) of his then-unvested shares of the Company's common stock. In addition, within twelve (12) months following a Change in Control, if the Company terminates Dr. Van Wart's employment without cause or, if he were to resign for good reason, the remaining unvested portion of all of his stock options shall have accelerated vesting such that all options are fully vested and exercisable as of the date of the Change in Control Termination.

Sr. VP of Research and Preclinical Development

CymaBay entered into an employment letter agreement with Dr. Charles A. McWherter on June 5, 2007. The agreement letter was amended on October 10, 2007 in order to address the requirement of Section 409A of the Internal Revenue Code. Dr. McWherter's employment agreement will continue until terminated by him or by the Company. Dr. McWherter will serve as VP of Research and Preclinical Development of the Company.

Base Salary, Bonus, Benefits: Dr. McWherter received an annual base salary of $327,309 in FY 2012. In addition, Dr. McWherter is eligible to earn an annual cash performance bonus, based upon achievement of annual performance goals and objectives set by the Chief Executive Officer each, year, with a target bonus of 25% of his base salary. In addition, Dr. McWherter is entitled to participate in any employee benefit plans that the Company may from time to time have in effect for its employees. Dr. McWherter is also eligible to participate in an individual disability income protection plan. The Company will reimburse Dr. McWherter for reasonable business expenses incurred in the discharge of duties in accordance with the general practices and policies of the Company and subject to the Company's annual expense budget.

Termination: Pursuant to the terms of the employment agreement, Dr. McWherter entered into an at-will employment relationship with the Company. Either Dr. McWherter or the Company may terminate the employment relationship at any time, with or without Cause and with or without advance notice. The Company may give Dr. McWherter twelve (12) months of his base salary in effect as of his termination date. In addition, Dr. McWherter is eligible to receive his potential annual discretionary bonus amount as if all performance targets have been satisfied, pro-rated for the number of months elapsed in the year in which his employment terminates. Base salary and bonus severance will be paid in equal installments during the twelve (12) month period following the termination date. Additionally, Dr. McWherter is eligible to continue coverage of group health benefits under COBRA. The Company will pay premiums for COBRA coverage for up to 12 months following the termination date, provided that Dr. McWherter does not attain full-time employment within this period.

Termination for Cause: If Dr. McWherter's employment is terminated for cause, he will receive only the portion of his base salary that has been earned and is then payable, but has not yet been paid.

Change in Control: For the purpose of Dr. McWherter's employee agreement, "Change in Control" means an event or a series of related events (collectively, a "Transaction") wherein the stockholders of the Company immediately before the Transaction do not retain direct or indirect beneficial ownership of more than fifty percent (50%) of the total combined voting power of the outstanding securities of the Company or, in the case of a Transaction described as the sale, exchange or transfer of all or substantially all of the assets of the Company, the corporation or other business entity to which the assets of the Company were transferred. At the close of a Change in Control, Dr. McWherter's outstanding stock options shall become vested and exercisable with respect to fifty percent (50%) of his then-unvested shares of the Company's common stock. In addition, within twelve (12) months following a Change in Control, if the Company terminates Dr. McWherter's employment or, if he resigns his employment, the remaining unvested portion of his stock options shall have accelerated vesting such that all options are fully vested and exercisable as of the date of the Change in Control Termination.

Chief Medical Officer

CymaBay entered into an employment letter agreement with Dr. Raymond Urbanski on October 3, 2011.

Base Salary, Bonus, Benefits: During the term of his 2012 employment, Dr. Urbanski received a base salary of $151,574. In addition, Dr. Urbanski was eligible to earn an annual cash performance bonus, based upon achievement of annual performance goals and objectives set by the Chief Executive Officer each year, with a target bonus of 25% of his base salary. Dr. Urbanski did not receive a bonus payment upon terminating his employment relationship. In addition, Dr. Urbanski was entitled to participate in any employee benefit plans that the Company may from time to time have in effect for its employees. Dr. Urbanski was also eligible to participate in an individual disability income protection plan. Dr. Urbanski resigned from CymaBay in June 2012.

Termination: Pursuant to the terms of the employment agreement, Dr. Urbanski entered into an at-will employment relationship with the Company pursuant to which Dr. Urbanski was eligible to receive twelve (12) months of his base salary in effect as of his termination date. In addition, Dr. Urbanski was eligible to receive his potential annual discretionary bonus amount as if all performance targets had been satisfied, pro-rated for the number of months elapsed in the year in which his employment terminated. Pursuant to his employment agreement, base salary and bonus severance were to be paid in equal installments during the twelve (12) month period following his termination date.

Vice President, Regulatory and Quality

CymaBay entered into an employment relationship with Dr. Charpentier on May 1, 2007.

Base Salary, Bonus, Benefits: Dr. Charpentier received an annual base salary of $270,097 in FY 2012. In addition, Dr. Charpentier is eligible to earn an annual case performance bonus, based upon achievement of annual performance goals and objectives set by the Chief Executive Officer each year, with a target bonus of 25% of her base salary. In addition, Dr. Charpentier is entitled to participate in any employee benefit plans that the Company may from time to time have in effect for its employees. Dr. Charpentier is also eligible to participate in an individual disability income protection plan. The Company will reimburse Dr. Charpentier for reasonable business expenses incurred in the discharge of duties in accordance with the general practices and policies of the Company and subject to the Company's annual expense budget.

Termination: Dr. Charpentier entered into an at-will employment relationship with the Company. Either Dr. Charpentier or the Company may terminate the employment relationship at any time, with or without Cause and with or without advance notice.

Termination for Cause: If Dr. Charpentier's employment is terminated for cause, she will receive only the portion of her base salary that has been earned and is then payable, but has not yet been paid.

Stock Options

In August 2003, the Company's stockholders approved the 2003 Equity Incentive Plan (2003 Plan), under which shares of common stock are reserved for the granting of options, stock bonuses, and restricted stock awards by the Company. These awards may be granted to employees, members of the Board of Directors, and consultants to the Company. The 2003 Plan terminated in accordance with its terms on July 31, 2013 and replaced the 1993 Stock Option Plan, which had similar terms.

The 2003 Plan permits the Company to (i) grant incentive stock options to directors and employees at not less than 100% of the fair value of common stock on the date of grant; (ii) grant nonqualified options to employees, directors, and consultants at not less than 85% of fair value; (iii) award stock bonuses; and (iv) grant rights to acquire restricted stock at not less than 85% of fair value. Options generally vest over a four- or five-year period and have a term of ten years. Options granted to 10% stockholders have a maximum term of five years and require an exercise price equal to at least 110% of the fair value on the date of grant. The exercise price of all options granted to date has been at least equal to the fair value of common stock on the date of grant. Restricted stock units granted in 2007 vested over a four- or five-year period, subject to certain performance conditions, and terminated on August 19, 2012.

In the past, our Board of Directors has determined the fair market value of our Common Stock based upon inputs including valuation reports prepared by third party valuation firms. Generally, our stock options granted to new hires have vested as 25% of the total number of option shares granted on the first anniversary of the award and in equal monthly installments over the ensuring 36 months, whereas subsequent grants to employees generally vest in equal monthly installments over 48 months. We have offered our Executive Officers the opportunity to purchase the unvested shares subject to their options, with the Company retaining a right to repurchase from the employee any shares that remain unvested if the employee's services with us terminate prior to the date on which the options are fully vested.

Director Compensation

The following table shows for the fiscal year ended December 31, 2012, certain information with respect to the compensation of all non-employee directors of CymaBay:

Name	Fees Earned or Paid in Cash	Option Awards (1) (2)	Total ($)
Louis G. Lange, M.D., Ph.D.	$ 0	$ 11,215	$11,215
Eric Converse	$ 0	$ 0	$ 0
Anthony B. Evnin, Ph.D.	$ 0	$ 0	$ 0
Carl Goldfischer, M.D.	$ 0	$ 0	$ 0
Bradley Bolzon, Ph.D. (3)	$ 0	$ 0	$ 0
Hari Kumar, Ph.D.	$ 0	$ 0	$ 0
Edward E. Penhoet, Ph.D.	$ 0	$ 0	$ 0
Kurt von Emster, CFA	$ 0	$ 3,042	$ 3,042
Robert Zerbe, M.D. (4)	$ 0	$ 2,579	$ 2,579

(1) These amounts are not cash compensation, but rather the aggregate fair value of the equity compensation paid to our Named Executive Officers during the fiscal year. The aggregate fair value is computed in accordance with FASB ASC Topic 718. See Note 11 to our consolidated financial statements contained in this report regarding assumptions underlying valuation of equity awards.

(2) Assumptions made in the valuation of stock options granted are discussed in Note 11 to CymaBay's 2012 Consolidated Financial Statements. Reflects the aggregate grant date fair value computed in accordance with ASC 718. Each director received only one option grant award in 2012, the fair market value of which is reflected in the table.

(3) Dr. Bolzon resigned from the Board of Director effective September 19, 2012.

(4) Mr. Zerbe resigned from the Board of Directors effective December 12, 2012.

At December 31, 2012, the following non-employee directors held options to purchase the following number of shares:

Name	Options
Louis G. Lange, M.D., Ph.D.	100,000
	36,225
	250,000
	9,775
Eric Converse	0
Anthony B. Evnin, Ph.D.	0
Carl Goldfischer, M.D.	0
Bradley Bolzon, Ph.D. (1)	0
Edward E. Penhoet, Ph.D.	0
Hari Kumar, Ph.D.	0
Kurt von Emster, CFA	75,000
	75,000
Robert Zerbe, M.D. (2)	75,000
	75,000

(1) Dr. Bolzon resigned from the Board of Director effective September 19, 2012.
(2) Mr. Zerbe resigned from the Board of Directors effective December 12, 2012.

ITEM 7. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

Related Party Transactions

There have been no transactions since January 1, 2011 to which we have been a party, in which the amount involved exceeded or will exceed $120,000, and in which any of our directors, executive officers or beneficial owners of more than 5% of our preferred stock or common stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest, other than compensation, termination and change-in-control arrangements, which are described under "Executive Compensation."

Indemnification Agreements

We have entered into indemnification agreements with certain of our officers and directors. The form of agreement provides that we will indemnify our directors against any and all expenses incurred by that director because of his or her status as one of our directors to the fullest extent permitted by Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws (except under certain circumstances including on account of such officer's or director's breach of a duty to CymaBay as determined by a final judgment or in a proceeding initiated by such person without board approval). In addition, the form agreement provides that, to the fullest extent permitted by Delaware law, we will pay for all expenses incurred by our directors, in connection with a legal proceeding.

Director Independence

CymaBay's business and affairs are organized under the direction of its board of directors, which currently consists of eight members. The Company considers each director, other than Dr. Van Wart, to be an independent director using the standards under the rules of the Nasdaq Stock Market. The primary responsibilities of the board of directors are to provide oversight, strategic guidance, counseling and direction to the Company's management. Each director shall hold office until a successor is elected and qualified or until the director resigns or is removed. Any director may be removed, with or without cause, by the holders of a majority of shares then entitled to vote at a meeting for the election of directors. Vacancies occurring on the board of directors will be filled by the vote of a majority of the remaining directors. The board of directors may, by resolution passed by a majority of the whole board of directors, designate one or more committees, each committee to consist of one or more of the directors of the corporation. In 2012, the non-executive members of the Company's board of directors did not receive compensation.

The board of directors at CymaBay currently has three 3 committees.

Compensation Committee:
Louis G. Lange, M.D., Ph.D.–Chairman
Carl Goldfischer, M.D.
Edward E. Penhoet, Ph.D.

Audit Committee:
Carl Goldfischer, M.D.—Chairman
Hari Kumar, Ph.D.
Anthony Evnin, Ph.D.

Nominating and Corporate Governance Committee:
Edward E. Penhoet, Ph.D.
Anthony Evnin, Ph.D.

ITEM 8. LEGAL PROCEEDINGS.

CymaBay is not a party, nor is any of its property subject to any legal proceedings.

ITEM 9. MARKET PRICE OF AND DIVIDENDS ON THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

Market information

There is currently no established public trading market for our common stock or preferred stock.

Rule 144

Shares of our common stock and preferred stock that are restricted securities will be eligible for resale in compliance with Rule 144 or Rule 701 of the Securities Act, subject to the requirements described below. "Restricted securities," as defined under Rule 144, were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. These shares may be sold in the public market only if registered or if they qualify for an exemption from registration, such as Rule 144 or Rule 701. Below is a summary of the requirements for sales of our common stock and preferred stock pursuant to Rule 144, after the effectiveness of this registration statement. Beginning 90 days after the effectiveness of this registration statement, a person who is our affiliate or who was our affiliate at any time during the preceding three months and who has beneficially owned restricted securities for at least six months, will generally be entitled to sell within any three month period a number of shares that does not exceed one percent of the number of shares in the same class of securities. Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us. Persons who may be deemed to be our affiliates generally include individuals or entities that control, or are controlled by, or are under common control with, us and may include our directors and officers, as well as our significant stockholders. For a person who has not been deemed to have been one of our affiliates at any time during the 90 days preceding a sale, sales of our shares of common stock and preferred stock held longer than six months, but less than one year, will be subject only to the current public information requirement and can be sold under Rule 144 beginning 90 days after the effectiveness of this registration statement without restriction. A person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least one year, is entitled to sell his or her shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144. We cannot estimate the number of shares of our common stock and preferred stock that our existing stockholders will elect to sell under Rule 144.

Rule 701

Rule 701 under the Securities Act permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement and the volume and public information requirements. Any of our employees, consultants or advisors, other than our affiliates, who purchased shares from us under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the effective date of this registration statement before selling their shares under Rule 701.

Holders

As of August 1, 2013, there were 466,681 shares of our common stock outstanding, which were held by approximately 120 record holders. In addition, there were 1,012,389 shares of our Series A-1 preferred stock outstanding, which were held by approximately 23 record holders; 29,671,222 shares of our Series B-1 preferred stock outstanding, which were held by approximately 66 record holders; 2,173,913 shares of our Series C-1 preferred stock outstanding, which were held by 1 record holder; 7,974,997 shares of our Series D-1 preferred stock outstanding, which were held by approximately 56 record holders; 3,121,593 shares of our Series E-1 preferred stock outstanding, which were held by approximately 27 record holders, and 5,687,700 shares of our

Series E-3 preferred stock outstanding, which were held by 1 record holder. As of August 31, 2012, each share of preferred stock was convertible into common stock on a one-for-one basis other than our Series D-1 preferred stock which is convertible into common stock at a ratio of 1:1.3652.

Dividends

We have not paid, nor do we currently intend to pay, any dividends on our common stock and any such dividend is subject to the dividends entitled to by the holders or our preferred stock. See "Item 11. Description of Registrant's Securities to be Registered—Preferred Stock."

Equity Compensation Plan Information

The following table provides information as of December 31, 2012, with respect to shares of our common stock that may be issued under existing equity compensation plans.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available For Future Issuance under Equity Compensation Plans
Equity compensation plans approved by security holders(1)	8,248,942	$ .43	2,918,190

1. Consists of our 2003 stock plan.

ITEM 10. RECENT SALES OF UNREGISTERED SECURITIES.

CymaBay has completed sales of the following unregistered securities since July 10, 2010:

(1) On December 17, 2010, CymaBay issued 5,687,700 shares of Series E-3 Preferred Stock to Johnson and Johnson Development Company ("JJDC") pursuant to the conversion of certain outstanding promissory notes in the principal amount of $14,000,000, and accrued interest, at a conversion price of $2.93 per share of Series E-3 Preferred Stock and issued 2,950,945 shares of Series E-1 Preferred Stock pursuant to the conversion of certain outstanding promissory notes in the principal amount of $8,072,202 at a conversion price of $2.93 per share. CymaBay relied on Regulation D under the Securities Act of 1933, as amended and Section 3(a)(9) of the Securities Act.

(2) On April 6, 2012, CymaBay issued 36 shares of Common Stock to George Daley pursuant to the exercise of outstanding warrants for an aggregate purchase price of $13.68 in reliance on Regulation D and Section 4(2) under the Securities Act of 1933.

(3) From July 10, 2010 to August 1, 2013, CymaBay issued an aggregate of 7,686 shares of Common Stock to four (4) of its employees upon the exercise of employee stock options for an aggregate purchase price of $671.16, in reliance on Rule 701 under the Securities Act.

ITEM 11. DESCRIPTION OF REGISTRANT'S SECURITIES TO BE REGISTERED.

The following description of CymaBay's capital stock does not purport to be complete and is subject in all respects to applicable Delaware law and to the provisions of CymaBay's certificate of incorporation, and bylaws, copies of which have been filed as exhibits to the Registration Statement.

We are registering on this registration statement only our common stock, the terms of which are described below. However, because our preferred stock will remain outstanding following the effectiveness of this registration statement, we also describe below the terms of our preferred stock to the extent such terms qualify the rights of our common stock.

Common Stock

Outstanding Shares. CymaBay's certificate of incorporation provides that an aggregate of 74,000,000 shares of CymaBay common stock, par value $0.0001 per share, are authorized for issuance. As of August 1, 2013, 466,681 shares of common stock and the following options to purchase common stock were issued and outstanding:

- 6,731,694 shares of CymaBay's common stock issuable upon the exercise of stock options outstanding as of August 1, 2013 at a weighted average exercise price of $0.48 per share.

The following is a summary of the material rights of CymaBay's common stock as set forth in its certificate of incorporation and bylaws.

Voting Rights. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of the stockholders, including the election of directors. The certificate of incorporation and by-laws do not provide for cumulative voting rights in connection with election of directors unless, at the time of such election, CymaBay is subject to Section 2115(b) of the California General Corporation Law.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of outstanding shares of common stock may receive dividends, if any, as may be declared from time to time by the Board of Directors out of legally available funds. CymaBay has never issued a dividend on shares of its common stock and has no intention to do so in the future.

Liquidation. In the event of liquidation, dissolution or winding up of CymaBay, the assets legally available for distribution shall be distributed ratably to the holders of shares of common stock and preferred stock, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Right of First Refusal. Each holder of common stock desiring to sell or otherwise transfer any such shares must first give written notice to CymaBay naming the proposed transferee, the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer. CymaBay has the option to purchase all of the shares specified in the notice at the price and upon the terms set forth in the notice for thirty (30) days following the receipt of such notice. This right of first refusal is subject to the exempt transactions listed in CymaBay's bylaws.

Rights and Preferences. Holders of common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that CymaBay may designate and issue in the future.

Fully Paid and Nonassessable. All outstanding shares of common stock are fully paid and nonassessable.

Preferred Stock

Outstanding Shares. CymaBay's certificate of incorporation provides that an aggregate of 55,258,608 shares of CymaBay preferred stock, par value $0.0001 per share, are authorized for issuance, consisting of 1,012,389 shares of Series A-1 Preferred Stock, 29,671,222 shares of Series B-1 Preferred Stock, 6,000,000 shares of Series C-1 Preferred Stock, 7,974,997 shares of Series D-1 Preferred Stock, 3,200,000 shares of Series E-1 Preferred Stock, and 7,400,000 shares of Series E-3 Preferred Stock (together with the Series E-1 Preferred Stock, the "Series E Preferred"). As of August 1, 2013, 49,641,814 shares of CymaBay preferred stock were issued and outstanding, including, 1,012,389 shares of Series A-1 Preferred Stock, 29,671,222 shares of Series B-1 Preferred Stock, 2,173,913 shares of Series C-1 Preferred Stock, 7,974,997 shares of Series D-1 Preferred Stock, 3,121,593 shares of Series E-1 Preferred Stock, and 5,687,700 shares of Series E-3 Preferred Stock.

The following is a summary of the material rights of CymaBay's preferred stock as set forth in its certificate of incorporation and other governing documents.

Dividends. The holders of Series E Preferred are entitled to cumulative dividends in preference to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred, and common stock. The holders of Series D-1 Preferred are entitled to cumulative dividends in preference to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, and common stock. The holders of Series B-1 Preferred and Series C-1 Preferred are entitled to cumulative dividends in preference to the holders of Series A-1 Preferred and common stock. The holders of Series A-1 Preferred are entitled to cumulative dividends in preference to the holders of common stock. The dividend rate is $0.2344, $0.32, $0.368, $0.2344, and $0.2344 per annum for each outstanding share of Series E Preferred, Series D-1 Preferred, Series C-1 Preferred, Series B-1 Preferred, and Series A-1 Preferred, respectively. Additionally, if dividends are paid to any holder of common stock, the holders of Preferred Stock will receive a dividend of a per share amount (on an as-if-converted to common stock basis) equal to the amount paid to the holders of common stock. All dividends are payable when and if declared by CymaBay's Board of Directors. Such dividends shall be awarded prior to any common stock dividends pursuant to CymaBay's certificate of incorporation.

Voting Rights. Each holder of shares of the preferred stock is entitled to the number of votes equal to the number of shares of common stock into which such shares of preferred stock could be converted as provided in CymaBay's certificate of incorporation. Except as provided in the certificate of incorporation, or as required by law, the preferred stock shall vote together with the common stock at any annual or special meeting of the stockholders and not as a separate class. Certain holders of preferred stock also have additional rights such as designating members to the Board of Directors and obligations to vote in favor of mergers, acquisition or reorganization as provided in CymaBay's Amended and Restated Voting Agreement dated October 1, 2009.

Liquidation Rights. Upon any liquidation, dissolution, or winding up of CymaBay, whether voluntary or involuntary, before any distribution or payment is made to the holders of common stock, holders of preferred stock are entitled to be paid out of the assets of CymaBay legally available for distribution as provided in the certificate of incorporation.

Conversion Rights. Any shares of preferred stock may, at the option of the holder, be converted at any time into fully-paid and nonassessable shares of common stock. The number of shares of common stock to which a holder of preferred stock shall be entitled upon conversion shall be the product obtained by multiplying the "Series Preferred Conversion Rate," as described in the amended and restated certificate of incorporation, by the number of shares of preferred stock being converted. All preferred stock is subject to automatic conversion to common stock upon certain qualifying event such as the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933 or the affirmative election of the holders of (a) sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of Series B-1 Preferred Stock and (b) the holders of at least fifty-one (51%) percent of the outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-converted basis. In connection with the next sale and issuance of capital stock of the Company, with aggregate proceeds to the Company of not less than $1,000,000, each holder of the Company's preferred stock that participates in such financing for between 1% and up to 99% of such holders "*Pro Rata Share*" (as defined in the Company's certificate of incorporation) shall have each shares of preferred stock represented by such participation amount convertible into four shares of common stock and the balance of any shares of preferred stock convertible at the applicable conversion rate as defined in the certificate of incorporation. Any holder that participates in such financing for between 100% and 300% of such holder's Pro Rata Share (the "*Participation Multiple*") shall have each shares of preferred stock convert into shares of common stock by multiplying the product of (y) the aggregate number of shares of preferred stock held by such holder multiplied by the applicable Participation Multiple and (z) four (4).

Redemption Rights. The holders of at least (A) sixty-six and two-thirds percent (66 2/3%) of the then outstanding shares of Series B-1 Preferred, voting as a separate class; and (B) fifty-one percent (51%) of the then

outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-converted basis, may, by written notice to CymaBay, require CymaBay to the extent it may lawfully do so, to redeem the Series B-1 Preferred, Series D-1 Preferred and Series E Preferred in three (3) annual installments beginning September 2021. There are currently no restrictions on the repurchase or redemption of shares by CymaBay in the event that there is any arrearage in the payment of dividends.

Registration Rights. Holders of CymaBay's preferred stock have the right to require CymaBay to register with the SEC the shares of common stock issuable upon conversion of such preferred stock so that those shares of common stock may be publicly resold, or to include those shares in any registration statement CymaBay files. The shares of common stock issuable upon conversion of the outstanding shares of preferred stock are hereinafter referred to as the "Underlying Securities."

Demand Registration Rights. Pursuant to CymaBay's Amended and Restated Investor Rights Agreement, dated October 1, 2009 (the "Investor Rights Agreement"), the holders of at least 35% of the Underlying Securities have the right to demand that CymaBay file up to two registration statements registering Underlying Securities held by such holders for resale. These registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares of Underlying Securities included in any such registration under certain circumstances.

Form S-3 registration rights. If CymaBay is eligible to file a registration statement on Form S-3, each holder of shares of the Underlying Securities has the right to demand that CymaBay file not more than two registration statement on Form S-3 in any 12-month period, provided further that the aggregate offering price, before any underwriters' discounts or commissions, of securities to be sold under the registration statement on Form S-3 is at least $1,000,000, subject to specified exceptions, conditions and limitations.

"Piggyback" Registration Rights. If CymaBay registers any securities for public sale (other than any registration statement relating to any employee benefit plan, any corporate reorganization or stock issued upon conversion of debt securities), holders of Underlying Securities shall have the right to include their shares in the registration statement. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement.

Expenses of Registration. CymaBay will pay all expenses, other than underwriting discounts and commissions, relating to all demand registrations, Form S-3 registrations, and piggyback registrations.

Termination of Registration Rights. All registration rights described above shall terminate and be of no further force and effect five (5) years after the date of CymaBay's first firm commitment underwritten public offering of its commons stock registered under the Securities Act.

Preemptive Rights. As more fully described in the Investor Rights Agreement, each holder of more than 682,500 shares of CymaBay's Series A-1 Preferred Stock, Series B-1 Preferred Stock, Series D-1 Preferred Stock and/or Series E Preferred has a right of first refusal to purchase its *pro rata* share of all equity securities that CymaBay may propose to sell and issue in the future subject to certain exclusions and waiver provisions.

ITEM 12. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the Delaware General Corporation Law are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act.

As permitted by the Delaware General Corporation Law, CymaBay's certificate of incorporation contains provisions that eliminate the personal liability of its directors for monetary damages for any breach of fiduciary duties as a director, except liability for the following:

- any breach of the director's duty of loyalty to CymaBay or its stockholders;

- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- under Section 174 of the Delaware General Corporation Law (regarding unlawful dividends and stock purchases); or
- any transaction from which the director derived an improper personal benefit.

As permitted by the Delaware General Corporation Law, CymaBay's amended and restated bylaws provide that:

- CymaBay is required to indemnify its directors and executive officers to the fullest extent permitted by the Delaware General Corporation Law, subject to very limited exceptions;
- CymaBay may indemnify its other employees and agents as set forth in the Delaware General Corporation Law;
- CymaBay is required to advance expenses, as incurred, to its directors and executive officers in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to very limited exceptions; and
- the rights conferred in the bylaws are not exclusive.

CymaBay has entered, and intends to continue to enter, into separate indemnification agreements with its directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in CymaBay's certificate of incorporation and restated bylaws and to provide additional procedural protections. At present, there is no pending litigation or proceeding involving a director or executive officer of CymaBay regarding which indemnification is sought. The indemnification provisions in CymaBay's restated certificate of incorporation, restated bylaws and the indemnification agreements entered into or to be entered into between CymaBay and each of its directors and executive officers may be sufficiently broad to permit indemnification of CymaBay's directors and executive officers for liabilities arising under the Securities Act. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of CymaBay pursuant to the foregoing provisions, or otherwise, CymaBay has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

CymaBay currently carries liability insurance for its directors and officers.

ITEM 13. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The information required by this item may be found beginning on page F-1 of this Form 10.

ITEM 14. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 15. FINANCIAL STATEMENTS AND EXHIBITS.

(a) Financial Statements filed as part of this registration statement:

(b) Exhibits.

See the Exhibit Index which follows the signature page of this Form 10, which is incorporated herein by reference.

INDEX TO EXHIBITS

Exhibit No.	Description of Document
3.1	Amended and Restated Certificate of Incorporation.
3.2	Amended and Restated By-Laws.
4.1	Reference is made to Exhibits 3.1 and 3.2
10.1*	2003 Equity Incentive Plan
10.2*	Form of 2003 Equity Incentive Plan Stock Option Agreement
10.3*	Form of 2003 Equity Incentive Plan Early Exercise Stock Option Agreement
10.4	Amended and Restated Investor Rights Agreement, dated October 1, 2009
10.5	Amended and Restated Voting Agreement, dated October 1, 2009
10.6	Lease, dated February 18, 1992, by and among Transplantation Technology, Inc., Metabolex, Inc. and Spieker-Singleton #87
10.7	Amendment No. 1 to Lease, dated October 8, 1996, between Metabolex, Inc. and Spieker Properties, L.P.
10.8	Amendment No. 2 to Lease, dated November 20, 1996, by and among Transplantation Technology, Inc., Metabolex, Inc. and Spieker Properties, L.P.
10.9	Amendment No. 3 to Lease, dated May 27, 1998, between Metabolex, Inc. and Spieker Properties, L.P.
10.10	Amendment No. 4 to Lease, dated May 29, 2003, between Metabolex, Inc. and EOP-Industrial Portfolio, L.L.C.
10.11	Amendment No. 5 to Lease, dated February 15, 2005, between Metabolex, Inc. and RREEF America REIT II, Corp. LLL
10.12	Amendment No. 6 to Lease, dated September 29, 2006, between Metabolex, Inc. and RREEF America REIT II, Corp. LLL
10.13	Amendment No. 7 to Lease, dated July 15, 2010, between Metaboex, Inc. and Northern California Industrial Portfolio, Inc.

* Indicates management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

CymaBay Therapeutics, Inc.

Date: August 12, 2013

By: /s/ Harold Van Wart
Harold Van Wart, Ph.D.
President and Chief Executive Officer

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CymaBay Therapeutics, Inc.

Financial Statements

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
CymaBay Therapeutics, Inc.

We have audited the accompanying balance sheets of CymaBay Therapeutics, Inc., formerly known as Metabolex, Inc., as of December 31, 2012 and 2011, and the related statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit, and cash flows for each of the two years in the period ended December 31, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of CymaBay Therapeutics, Inc. at December 31, 2012 and 2011, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2012 in conformity with U.S. generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has recurring losses from operations and has a net capital deficiency that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Ernst & Young LLP

Redwood City, CA
June 17, 2013
Except for Note 15, as to which the date is August 9, 2013

CymaBay Therapeutics, Inc.

Balance Sheets

(In thousands, except share and per share amounts)

	December 31, 2012	December 31, 2011	March 31, 2013 (unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 7,726	$ 8,021	$ 5,622
Marketable securities	—	11,012	0
Contract receivables	108	124	119
Accrued interest receivable	9	100	—
Prepaid expenses	147	234	127
Total current assets	7,990	19,491	5,868
Property and equipment, net	84	203	58
Other assets	42	93	42
Total assets	$ 8,116	$ 19,787	$ 5,968
Liabilities and redeemable convertible preferred stock and stockholders' deficit			
Current liabilities:			
Accounts payable	$ 657	$ 1,608	$ 677
Accrued liabilities	894	1,185	1,145
Convertible notes	13,737	—	13,747
Accrued interest payable	2,566	—	2,770
Equipment loans	—	12	—
Total current liabilities	17,854	2,805	18,339
Convertible notes	—	13,747	—
Accrued interest payable	—	1,785	—
Deferred rent	132	214	109
Total Liabilities	17,986	18,551	18,448
Commitments and contingencies *(Note 8)*			
Redeemable convertible preferred stock, $0.0001 par value: 55,258,608 shares authorized; 49,641,814 shares issued and outstanding; aggregate liquidation preference of $259,859, $256,750 and $244,107 as of March 31, 2013, December 31, 2012 and 2011, respectively	318,697	306,053	321,806
Stockholders' deficit:			
Common stock, $0.0001 par value: 74,000,000 shares authorized; 464,681, 460,495 and 458,959 shares issued and outstanding as of March 31, 2013, December 31, 2012 and 2011, respectively	—	—	—
Additional paid-in capital	913	762	931
Accumulated other comprehensive income (loss)	—	2	—
Accumulated deficit	(329,480)	(305,581)	(335,217)
Total stockholders' deficit	(328,567)	(304,817)	(334,286)
Total liabilities and redeemable convertible preferred stock and stockholders' deficit	$ 8,116	$ 19,787	$ 5,968

See accompanying notes.

CymaBay Therapeutics, Inc.

Statements of Operations and Comprehensive Loss

(In Thousands, except share and per share information)

	Years Ended December 31,		Three Months Ended March 31,	
	2012	2011	2013	2012
			(Unaudited)	
Contract revenue	$ 3,050	$ 15,147	—	113
Operating expenses:				
Research and development	9,280	14,391	1,490	2,685
General and administrative	4,208	4,654	925	1,149
Total operating expenses	13,488	19,045	2,415	3,834
Loss from operations	(10,438)	(3,898)	(2,415)	(3,721)
Other Income (Expense):				
Interest income	22	78	1	9
Interest expense	(841)	(705)	(212)	(196)
Other income, net	2	28	(2)	1
Net loss	(11,255)	(4,497)	(2,628)	(3,907)
Accretion to redemption value of redeemable convertible preferred stock	(12,644)	(12,609)	(3,109)	(3,152)
Net loss attributable to stockholders	(23,899)	(17,106)	(5,737)	(7,059)
Other comprehensive loss/income:				
Unrealized (losses) gains on marketable securities	(2)	14	—	(1)
Other comprehensive (loss) income	(2)	14	—	(1)
Comprehensive loss	$ (11,257)	$ (4,483)	$ (2,628)	(3,908)
Basic and diluted net loss per common share	$ (51.93)	$ (37.27)	$ (12.39)	$ (15.37)
Weighted average common shares outstanding used to calculate basic and diluted net loss per common share	460,182	458,959	463,053	459,239

See accompanying notes.

CymaBay Therapeutics, Inc.

Statements of Convertible Preferred Stock and Stockholders' Deficit

(In Thousands, except share and per share information)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balances as of December 31, 2010	49,641,814	$293,444	458,959	$ —	$ —	$ (12)	$ (288,475)	$ (288,487)
Non-employee stock-based compensation expense	—	—	—	—	5	—	—	5
Employee and director stock-based compensation expense	—	—	—	—	757	—	—	757
Accretion to redemption value of redeemable convertible preferred stock	—	12,609	—	—	—	—	(12,609)	(27,749)
Net loss	—	—	—	—	—	—	(4,497)	(4,497)
Net unrealized loss on marketable securities	—	—	—	—	—	14	—	14
Balances as of December 31, 2011	49,641,814	$306,053	458,959	$ —	$ 762	$ 2	$ (305,581)	$ (304,817)
Discount conversion feature associated with convertible notes	—	—	—	—	70	—	—	70
Issuance of common stock upon exercise of options	—	—	1,500	—	—	—	—	—
Non-employee stock-based compensation expense	—	—	36	—	1	—	—	1
Employee and director stock-based compensation expense	—	—	—	—	80	—	—	80
Accretion to redemption value of redeemable convertible preferred stock	—	12,644	—	—	—	—	(12,644)	(12,644)
Net loss	—	—	—	—	—	—	(11,255)	(11,255)
Net unrealized gain on marketable securities	—	—	—	—	—	(2)	—	(2)
Balances as of December 31, 2012	49,641,814	$318,697	460,495	$ —	$ 913	$ —	$ (329,480)	$ (328,567)
Issuance of common stock upon exercise of options	—	—	4,186	—		—	—	—
Employee and director stock-based compensation expense	—	—	—	—	18	—	—	18
Accretion to redemption value of redeemable convertible preferred stock	—	3,109	—	—	—	—	(3,109)	(3,109)
Net loss	—	—	—	—	—	—	(2,628)	(2,628)
Balances as of March 31, 2013 (unaudited)	49,641,814	$321,806	464,681	—	$ 931	—	$ (335,217)	$ (334,286)

See accompanying notes.

CymaBay Therapeutics, Inc.

Statements of Cash Flows

(In Thousands)

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2011	2013	2012
			(unaudited)	
Operating activities				
Net loss	$ (11,255)	$ (4,497)	(2,628)	(3,907)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization	119	210	26	32
Non-employee stock-based compensation expense	1	6		—
Employee and director stock-based compensation expense	80	757	18	29
Non-cash interest associated with discount accretion	60	—	11	(15)
Changes in assets and liabilities:				
Contract receivables	16	267	(11)	(16)
Accrued interest receivable	91	250	9	48
Prepaid expenses	87	12	20	(22)
Other assets	51	110		51
Accounts payable	(951)	(557)	20	(643)
Accrued liabilities	(291)	(520)	250	334
Accrued interest payable	781	693	204	180
Deferred rent	(82)	69	—	38
Deferred revenue	—	(14,725)	(23)	(16)
Net cash used in operating activities	(11,293)	(17,925)	(2,104)	(3,907)
Investing activities				
Purchases of property and equipment	—	(37)	—	—
Purchases of marketable securities	(2,881)	(21,714)	—	(406)
Proceeds from maturities of marketable securities	13,891	40,985	—	4,749
Net cash provided by investing activities	11,010	19,234	—	4,343
Financing activities				
Principal payments on equipment loans	(12)	(200)	—	(12)
Net cash provided /used in financing activities	(12)	(200)	—	(12)
Net (decrease)/increase in cash and cash equivalents	(295)	1,109	(2,104)	424
Cash and cash equivalents at beginning of year	8,021	6,912	7,726	8,021
Cash and cash equivalents at end of year	$ 7,726	$ 8,021	$ 5,622	$ 8,445
Supplemental disclosure of cash flow information				
Interest paid	$ —	$ 10	—	—

See accompanying notes.

Notes to Financial Statements

1. Organization and Description of Business

CymaBay Therapeutics, Inc., formerly Metabolex, Inc. (the Company) is a biopharmaceutical company focused on the discovery and development of proprietary new medicines for the treatment of gout and metabolic diseases. The Company was incorporated in Delaware in October 1988 as Transtech Corporation.

Since inception, the Company has funded its operations primarily through the sale of convertible preferred stock, receipts from the exercise of related warrants to purchase preferred stock, the issuance of convertible notes, and up-front fees, milestones, and research and development funding received under collaboration agreements. The primary uses of funds to date have been for research, pre-clinical and clinical development, drug manufacturing, license payments, business development and administration, and spending on capital items.

Need to Raise Additional Capital

The accompanying financial statements for the years ended December 31, 2012 and 2011, have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business for the foreseeable future. The Company has incurred net losses from operations since its inception and has an accumulated deficit of $329.5 million at December 31, 2012. The Company recorded net losses of $11.3 million and $4.5 million for the years ended December 31, 2012 and 2011, respectively. The Company also recorded negative cash flows from operating activities during 2012 and 2011 of $11.3 million and $17.9 million, respectively. To date, none of the Company's product candidates have been approved for marketing and sale, and the Company has not recorded any product sales. Management expects operating losses to continue for the next several years. The Company's ability to achieve profitability is dependent primarily on its ability to successfully develop, acquire or in-license additional product candidates, continue clinical trials for product candidates currently in clinical development, obtain regulatory approvals, and support commercialization activities for partnered product candidates. Products developed by the Company will require approval of the U.S. Food and Drug Administration (FDA) or a foreign regulatory authority prior to commercial sale. The regulatory approval process is expensive, time-consuming, and uncertain, and any denial or delay of approval could have a material adverse effect on the Company. Even if approved, the Company's products may not achieve market acceptance and will face competition from both generic and branded pharmaceutical products. As of December 31, 2012, the Company had cash and cash equivalents of $7.7 million and a working capital deficit of $9.9 million. The Company will require additional financial resources to fund its ongoing operations, which management plans to raise primarily through equity and/or debt financings and/or collaboration activities. Such funding may not be available to the Company on acceptable terms, or at all. The Company has recurring losses from operations and has a net capital deficiency that raises substantial doubt about its ability to continue as a going concern if additional financial resources are not obtained. The accompanying financial statements do not include any adjustments relating to the recoverability of the carrying amounts of recorded assets or the amount of liabilities that might result from the outcome of uncertainties.

2. Summary of Significant Accounting Policies

Basis of Presentation and Use of Estimates

The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP), which requires management to make estimates and assumptions that affect the amounts and disclosures reported in the financial statements and accompanying notes. Management bases its estimates on historical experience and on assumptions believed to be reasonable under the circumstances. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes, and management must select an amount that falls within that range of reasonable estimates. Actual results could differ materially from those estimates. The Company believes significant judgment is involved in determining revenue recognition and in estimating stock-based compensation, accrued liabilities, and equity instrument valuations.

Unaudited Interim Financial Information

The accompanying balance sheet as of March 31, 2013, the statements of operations and comprehensive loss and cash flows for the three months ended March 31, 2013 and 2012, and the statements of convertible preferred stock and stockholder's deficit for the three months ended March 31, 2013, are unaudited. The financial data and other information disclosed in these notes to the financial statements related to March 31, 2013, and the three months period ended March 31, 2012, are also unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly the Company's financial position as of March 31, 2012, and the results of its operations and cash flows for the three months ended March 31, 2011, and 2012. The results for the three months ended March 31, 2013, are not necessarily indicative of results to be expected for the year ending December 31, 2013, or for any other interim period or for any future year.

Concentration of Credit Risk

Cash, cash equivalents, and marketable securities consist of financial instruments that potentially subject the Company to a concentration of credit risk to the extent of the fair value recorded in the balance sheet. The Company invests cash that is not required for immediate operating needs primarily in highly liquid instruments that bear minimal risk. The Company has established guidelines relating to the quality, diversification, and maturities of securities to enable the Company to manage its credit risk.

Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, short-term marketable securities, accounts payable, accrued expenses, and convertible notes. Fair value estimates of these instruments are made at a specific point in time, based on relevant market information. These estimates may be subjective in nature and involve uncertainties and matters of significant judgment and therefore cannot be determined with precision. The carrying amounts of cash and cash equivalents, and accrued liabilities are generally considered to be representative of their respective fair values because of the short-term nature of those instruments.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. Assets and liabilities that are measured at fair value are reported using a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and maximizes the use of unobservable inputs and is as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2—Inputs other than quoted prices in active markets that are observable for the asset or liability, either directly or indirectly.

Level 3—Inputs that are unobservable for the asset or liability.

The carrying amounts of financial instruments such as cash and cash equivalents, short-term marketable securities, accounts payable, convertible notes, and accrued expenses approximate the related fair values due to the short-term maturities of these instruments. Marketable securities consist of available-for-sale securities that are reported at fair value, with the related unrealized gains and losses included in accumulated other comprehensive income (loss), a component of stockholders' deficit. The Company values cash equivalents and marketable securities using quoted market prices or alternative pricing sources and models utilizing observable market inputs and, as such, classifies cash equivalents and marketable securities within Level 1 or Level 2. As of March 31, 2013, December 31, 2012 and 2011, the Company had no assets or liabilities measured at fair value on a recurring basis within the Level 3 hierarchy.

Cash, Cash Equivalents, and Marketable Securities

The Company considers all highly liquid investments with a remaining maturity of 90 days or less at the time of purchase to be cash equivalents. Cash and cash equivalents consist of deposits with commercial banks in checking, interest-bearing, and demand money market accounts. The Company invests excess cash in marketable securities with high credit ratings. These securities consist primarily of U.S. Treasury or agency obligations and corporate debt and are classified as "available-for-sale." Management may liquidate any of these investments in order to meet the Company's liquidity needs in the next year. Accordingly, any investments with contractual maturities greater than one year from the balance sheet date are classified as short-term in the balance sheet.

Realized gains and losses from the sale of marketable securities, if any, are calculated using the specific-identification method. Realized gains and losses and declines in value judged to be other-than-temporary are included in interest income or expense in the statements of operations. Unrealized holding gains and losses are reported in accumulated other comprehensive loss, in the balance sheet. To date, the Company has not recorded any impairment charges on its marketable securities related to other-than-temporary declines in market value. In determining whether a decline in market value is other-than-temporary, various factors are considered, including the cause, duration of time and severity of the impairment, any adverse changes in the investees' financial condition, and the Company's intent and ability to hold the security for a period of time sufficient to allow for an anticipated recovery in market value.

Property and Equipment

Property and equipment is stated at cost, less accumulated depreciation and amortization. Depreciation and amortization is calculated using the straight-line method, and the cost is amortized over the estimated useful lives of the respective assets, generally three to seven years. Leasehold improvements are amortized over the shorter of the useful lives or the non-cancelable term of the related lease. Maintenance and repair costs are charged as expense in the statements of operations and comprehensive loss as incurred.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. An impairment loss is recognized if the estimated undiscounted future cash flow expected to result from the use and eventual disposition of an asset is less than the carrying amount. While the Company's current and historical operating losses and cash flows are indicators of impairment, the Company believes the future cash flows to be received support the carrying value of its long-lived assets. Accordingly, the Company has not recognized any impairment losses as of March 31, 2013, December 31, 2012 and 2011.

Deferred Rent

The Company records its costs under facility operating lease agreements as rent expense. Rent expense is recognized on a straight-line basis over the non-cancelable term of the operating lease. The difference between the actual amounts paid and amounts recorded as rent expense is recorded to deferred rent in the balance sheet.

Revenue Recognition

The Company recognizes revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred or services have been rendered, (iii) the price is fixed and determinable, and (iv) collectability is reasonably assured. Payments received in advance of work performed are recorded as deferred revenue and recognized when earned. All revenue recognized to date under the collaboration agreements has been nonrefundable.

Contract revenue from two strategic partners accounted for 95% and 5%, respectively, of total contract revenue in 2011. In 2012, 100% of contract revenue was from one strategic partner. There was no contract revenue for the three months ended March 31, 2013.

Multiple Element Arrangements

The Company evaluates revenue from agreements that have multiple elements to determine whether the components of the arrangement represent separate units of accounting. Management considers whether components of an arrangement represent separate units of accounting based upon whether certain criteria are met, including whether the delivered element has stand-alone value to the customer. To date, all of the Company's collaboration agreements have been assessed to have one unit of accounting. Up-front and license fees received for a combined unit of accounting have been deferred and recognized ratably over the projected performance period. Non-refundable fees where the Company has no continuing performance obligations have been recognized as revenue when collection is reasonably assured and all other revenue recognition criteria have been met.

Milestones and Contingent Payments

Contingent consideration received from the achievement of a substantive milestone will be recognized in its entirety in the period in which the milestone is achieved. A milestone is defined as an event having all of the following characteristics: (i) there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved, (ii) the event can only be achieved based in whole or in part on either the company's performance or a specific outcome resulting from the company's performance and (iii) if achieved, the event would result in additional payments being due to the company.

The Company's future research and development and license agreements may provide for success fees or payments to be paid to the Company upon the achievement of certain development milestones. Given the challenges inherent in developing biologic products, there may be substantial uncertainty as to whether any such milestones would be achieved at the time the agreements are executed. In addition, the Company will evaluate whether the development milestones meet all of the conditions to be considered substantive. The conditions include: (1) the consideration is commensurate with either of the following: (a) the Company's performance to achieve the milestone or (b) the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the Company's performance to achieve the milestone; (2) the consideration relates solely to past performance; and (3) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. If the Company considers the development milestones to be substantive, revenue related to such future milestone payments will be recognized as the Company achieves each milestone. Research and Development Funding Internal and external research and development costs reimbursed in connection with research and development funding or collaboration agreements are recognized as revenue in the same period as the costs are incurred, and are presented on a gross basis because the Company acts as a principal, has the discretion to choose suppliers, bears credit risk, and performs part of the services.

Research and Development Expenses

Research and development expenses consist of costs incurred in identifying, developing, and testing product candidates. These expenses consist primarily of costs for research and development personnel, including related stock-based compensation; contract research organizations and other third parties that assist in managing, monitoring, and analyzing clinical trials; investigator and site fees; laboratory services; consultants; contract manufacturing services; non-clinical studies, including materials; and allocated expenses, such as depreciation of assets, and facilities and information technology that support research and development activities. Research and development costs are expensed as incurred, including expenses that may or may not be reimbursed under research and development funding arrangements. Research and development expenses under collaboration agreements approximate the revenue recognized under such agreements.

The expenses related to clinical trials are based upon estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage clinical trials on behalf of the Company. Expenses related to clinical trials are accrued based upon the level of activity incurred under each contract as indicated by such factors as progress made against specified milestones or targets in each period, patient enrollment levels, and other trial activities. Payments made to third parties under these clinical trial arrangements in advance of the receipt of the related services are recorded as prepaid assets, depending on the terms of the agreement, until the services are rendered.

Stock-Based Compensation

Employee and director stock-based compensation is measured at the grant date, based on the fair-value-based measurements of the stock awards, and the portion that is ultimately expected to vest is recognized as an expense over the related vesting periods, net of estimated forfeitures. The Company calculates the fair-value-based measurements of options using the Black-Scholes valuation model and the single-option approach and recognizes expense using the straight-line attribution method.

Equity awards granted to non-employees have been accounted for using the Black-Scholes valuation model to determine the fair value-based measurements of such instruments. The fair value-based measurements of options and warrants granted to non-employees are re-measured over the related vesting period and amortized to expense as earned.

Income Taxes

The Company utilizes the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and the tax bases of assets and liabilities and are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is recorded when it is more likely than not that all or part of a deferred tax asset will not be realized.

The Company follows the accounting guidance for uncertainty in income taxes. The guidance prescribes a recognition threshold and measurement attribute criteria for the financial recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination based on the technical merits of the position. Due to the Company's ongoing operating losses since inception, the Company has not recorded reserves for uncertain tax positions as of December 31, 2012 and 2011.

The Company recognizes the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. The Company records interest related to income taxes, if any, as interest, and any penalties would be recorded as other expense in the statements of operations and comprehensive loss. There was no interest or penalties related to income taxes recorded during the years ended December 31, 2012 and 2011.

Comprehensive Loss

Comprehensive loss includes net loss and net unrealized gains and losses on marketable securities, which are presented in a single continuous statement. Comprehensive loss is disclosed in the statements of convertible preferred stock and stockholders' deficit, and is stated net of related tax effects, if any.

Net Loss Per Common Share

Basic net loss per share of common stock is based on the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share of common stock is based on the weighted average number of shares outstanding during the period, adjusted to include the assumed conversion of certain stock options, and warrants for common stock.

Potentially dilutive securities are excluded from the calculation of loss per share if their inclusion is anti-dilutive. The following table shows the total outstanding securities considered anti-dilutive and therefore excluded from the computation of diluted net loss per share (in thousands):

	Three months ended March 31, (unaudited)		Twelve months ended December 31,	
	2013	2012	2012	2011
Common stock options	8,249	8,870	8,249	9,698
Warrants for common stock	2,243	2,359	2,243	2,359

For the three and twelve months ended March 31, 2013 and 2012 and December 31, 2012 and 2011, all outstanding securities were considered anti-dilutive, and therefore the calculation of basic and diluted net loss per share was the same.

Recent Accounting Pronouncements

In June 2011, the Financial Accounting Standards Board (the FASB) issued Accounting Standards Update (ASU) No. 2011-05, *Presentation of Comprehensive Income*. This ASU gives an entity the option to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. This guidance is effective on a retrospective basis in the Company's financial statements for the year ending December 31, 2012. The Company adopted this pronouncement and elected to present a single continuous statement of comprehensive income. The retrospective application had only a presentation impact on the Company's financial statements for the twelve months ended December 31, 2012.

In May 2011, the FASB issued ASU No. 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*. This ASU is the result of joint efforts by the FASB and International Accounting Standards Board to develop a single, converged fair value framework. While this ASU is largely consistent with existing fair value measurement principles in U.S. GAAP, it expands the existing disclosure requirements for fair value measurements in Accounting Standards Codification (ASC) Topic 820, *Fair Value Measurement*, and makes other amendments. Many of these amendments were made to eliminate unnecessary wording differences between U.S. GAAP and International Financial Reporting Standards, which could change how fair value measurement guidance in ASC 820 is applied. This guidance was effective on a prospective basis for the Company on January 1, 2012. The prospective application had only a disclosure impact on the Company's financial statements for the year ended December 31, 2012.

3. Marketable Securities

There were no unrealized losses or gains and the amortized cost and estimated fair value was 0 as of March 31, 2013 and December 31, 2012. Marketable available-for-sale securities as of December 31, 2011 consist of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
As of December 31, 2011:				
Obligations of U.S. government agencies	$ 4,495	$ 1	$ —	$ 4,496
Corporate debt securities	6,516	—	—	6,516
	$ 11,011	$ 1	$ —	$ 11,012

As of December 31, 2011, all marketable securities had contractual maturities of less than one year. Realized gains and losses were immaterial for the years ended December 31, 2012 and 2011 and the three months ended March 31, 2013 and 2012.

4. Certain Balance Sheet Items

Property and equipment consists of the following (in thousands):

	December 31,		March 31, 2013
	2012	2011	(unaudited)
Laboratory equipment	$ 3,778	$ 3,778	$ 3,778
Office and computer equipment	983	983	983
Purchased software	166	166	166
Furniture and fixtures	174	174	174
Leasehold improvements	2,534	2,534	2,534
Total	7,635	7,635	7,635
Less accumulated depreciation and amortization	(7,551)	(7,432)	(7,577)
Property and equipment, net	$ 84	$ 203	58

Property and equipment includes assets financed through equipment loans, which were fully paid in January 2012. Property and equipment and accumulated depreciation related to assets financed by equipment loans was $1.1 million as of December 31, 2011.

Accrued liabilities consist of the following (in thousands):

	December 31,		March 31, 2013
	2012	2011	(unaudited)
Accrued compensation	$291	$ 362	$ 281
Accrued pre-clinical and clinical trial expenses	304	496	453
Accrued professional fees	285	292	397
Other accruals	14	35	14
Total accrued liabilities	$894	$1,185	$ 1,145

5. Collaboration Agreements

Sanofi-Aventis Deutschland GMBH

In June 2010, the Company entered into a development and license agreement effective July 21, 2010, with Sanofi-Aventis Deutschland GMBH (Sanofi-Aventis), whereby Sanofi-Aventis received an exclusive worldwide license for the research, development, manufacture and commercialization of small molecules that modulate the G-protein coupled receptor 119 (GPR119). The agreement includes rights to MBX-2982, a potent selective orally active GPR119 agonist discovered by the Company. Upon the effective date of this agreement, the Company received a one-time nonrefundable up-front license payment of $25.0 million. The Company was eligible to receive milestones if certain development and commercial events were achieved, as well as royalties on worldwide product sales, if any. The one-time nonrefundable up-front license payment was being recognized as revenue ratably over the period that the Company expected to complete certain research and development activities that represent the Company's substantive performance obligations under the agreement. Of this up-front license fee, $11.0 million was recognized as contract revenue in 2011 and none was recognized in 2012.

On June 15, 2011, the arrangement was terminated by Sanofi-Aventis. Following termination, the Company retained rights to the current programs under this agreement and may continue to develop the programs and commercialize any products resulting from the programs, or the Company may elect to cease progressing the programs and/or seek other partners for further development and commercialization of the programs.

In 2012, the Company recognized a final payment from Sanofi-Aventis of $2.9 million as contract revenue.

Takeda San Francisco, Inc.

In March 2010, the Company entered into a research collaboration agreement with Takeda San Francisco, Inc. (TSF), a wholly owned subsidiary of Takeda Pharmaceutical Company Limited. The Company collaborated with TSF on the evaluation and validation of protein targets for the development of biological products. In March 2010, the Company received $1.5 million, representing $0.9 million of one-time nonrefundable technology access fees and $0.6 million of specified research and development funding for the research term of the collaboration. The technology access fee and the research and development funding were deferred and were being recognized ratably over the funded research term, which was scheduled from March 2010 to August 2011. The Company recognized $0.7 million and $0.8 million as contract revenue in 2011 and 2010, respectively, under this arrangement. Approximately $0.1 was recognized as specific research and development funding under this agreement in the year ended December 31, 2012. Takeda terminated this agreement on March 16, 2013 with no further payments being made.

Pfizer, Inc.

In December 1998, the Company entered into a collaboration agreement in the area of insulin secretion target discovery with the Parke-Davis division of Warner-Lambert Company, since acquired by Pfizer Inc., to identify genes involved in diabetes and to develop therapeutic compounds from the research. The collaboration agreement provided for an initial five-year funded research term, which was subsequently extended an additional year until December 2004. The Company received payments for research and development costs for the funded research term and is entitled to receive payments for specified drug development achievements. If products resulting from the collaboration are eventually marketed and sold, the Company will also receive royalties on sales of such products. No amounts were received under this agreement in the years ended December 31, 2012 and, 2011.

The Company was also eligible to receive contingent payments if certain development and commercial events were achieved as well as royalties on worldwide product sales, if any. The $7.5 million one-time nonrefundable technology access fee was recognized as revenue in 2010, as the Company had no substantive performance obligations under this arrangement. No amounts were received under this agreement in quarter ended March 31, 2013 and 2012 and for the years ended December 31, 2012 and 2011.

6. License Agreements

In June 1998, the Company entered into a license agreement with DiaTex, Inc. (DiaTex) relating to products containing halofenate, its enantiomers, derivatives, and analogs (the licensed products). The license agreement provides that DiaTex and the Company are joint owners of all of the patents and patent applications covering the licensed products and methods of producing or using such compounds, as well as certain other know-how (the covered IP). As part of the license agreement, the Company received an exclusive worldwide license, including as to DiaTex, to use the covered IP to develop and commercialize the licensed products. The Company also retained the right to sub-license the covered IP. The license agreement contains a $2,000 per month license fee as well as a requirement to make additional payments for development achievements and royalty payments on any sales of licensed products. Pursuant to the license agreement, all of the Company's patents and patent applications related to MBX-102, its use, and production are jointly owned with DiaTex. DiaTex is entitled to up to $0.8 million for the future development of MBX-102, as well as royalty payments on any sales of products containing MBX-102. No development payments were made in the years ended December 31, 2012 and, 2011 or the three months ended March 31, 2013 and 2012 and no royalties have been paid to date.

7. Debt

On June 20, 2006 the Company entered into a equity and loan facility with the Johnson and Johnson Development Corporation ("JJDC") pursuant to which the Company could drawn down up to an aggregate of $30 million in loans in the form of convertible preferred stock promissory notes. In March and September 2008, the Company issued notes in the aggregate amount of $3.5 million and $10.5 million, respectively. The notes

were due on March 17 and September 17, 2011, including interest that accrued at 7.57% per annum. In December 2010, the aggregate principal amount and all accrued interest under the notes issued in March and September 2008 were converted into the Company's Series E-3 convertible preferred stock (Series E-3 Preferred) at 2.93 per share.

In February and July 2009, the Company issued notes in the aggregate amount of $7.0 million and $6.7 million, respectively, which represented the remaining amount available to the Company, in accordance with the terms of the equity and loan facility with JJDC. The notes were due in February 2012 and July 2012, including interest that accrued at 4.42% per annum and 4.960% per annum, respectively. In January 2012, the Company amended the maturity dates of the outstanding $7.0 million and $6.7 million convertible promissory notes to extend the maturity date to March 1, 2013 (see Note 15 for additional extension), and interest rates were increased to 4.919% and 5.46% per annum, respectively. In addition, the conversion price of the notes to convert into shares of the Company's Series C-1 Preferred Stock was decreased from $5.52 per share to $3.68 per share. All of these notes were further amended in March 2013, to extend the maturity date on the notes to August 1, 2013, and to make the notes subordinate to repayment of the Company's severance obligations to all employees until January 1, 2014. On July 31, 2013, the maturity date was extended to December 31, 2013. For the years ended December 31, 2012 and 2011, the Company recognized $0.7 million and $0.7 million, respectively, of interest expense related to the convertible promissory notes. For the three months ended March 31, 2013 and 2012, the Company recognized $0.2 million and $0.2 million, respectively, of interest expense related to the convertible promissory note. There are no financial covenants associated with the notes.

Equipment Loans

In February 2007, the Company entered into an equipment loan and security agreement with General Electric Capital Corporation (GECC) under which GECC provided loans to the Company totaling $1.1 million in 2007, each with a term of four years, at fixed rates of interest between 9.78% and 9.91%. GECC has been granted a security interest in all equipment financed by the loans. There are no financial covenants associated with the agreement. As part of finalizing the loan agreement, the Company made a one-time deposit to GECC in the amount of $0.2 million. In 2011, $0.1 million of the deposit was returned to the Company, and the remaining outstanding deposit balance was returned upon full repayment of the principal balance in January 2012.

8. Commitments and Contingencies

Operating Lease Commitments

The Company leases office and laboratory space in a single building in Hayward, California. The facility lease, as amended on July 15, 2010, has a term of four years, unless terminated earlier by the Company, and expires on April 30, 2014. Rent expense was $0.5 million for the years ended December 31, 2012 and 2011 and $0.1 million for the three months ended March 31, 2013 and 2012.

Future minimum lease payments under this amended agreement are as follows (in thousands):

	Lease Payments
Year ending December 31:	
2013	$ 422
2014	143
Total future minimum payments	$ 565

Indemnification

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for general indemnification, including indemnification associated

with product liability or infringement of intellectual property rights. The Company's exposure under these agreements is unknown because it involves future claims that may be made against the Company that may be, but have not yet been, made. To date, the Company has not paid any claims or been required to defend any action related to these indemnification obligations, and no amounts have been accrued in the accompanying balance sheets related to these indemnification obligations.

The Company has agreed to indemnify its executive officers and directors for losses and costs incurred in connection with certain events or occurrences, including advancing money to cover certain costs, subject to certain limitations. The maximum potential amount of future payments the Company could be required to make under this indemnification is unlimited; however, the Company maintains insurance policies that may limit its exposure and may enable it to recover a portion of any future amounts paid. Assuming the applicability of coverage, the willingness of the insurer to assume coverage, and subject to certain retention, loss limits, and other policy provisions, the Company believes the fair value of these indemnification obligations is not material. Accordingly, the Company has not recognized any liabilities relating to these obligations as of December 31, 2012 and 2011. No assurances can be given that the covering insurers will not attempt to dispute the validity, applicability, or amount of coverage without expensive litigation against these insurers, in which case the Company may incur substantial liabilities as a result of these indemnification obligations.

9. Redeemable Convertible Preferred Stock

The Company has the following series of outstanding convertible preferred stock (collectively, the Preferred Stock): Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred, Series E-1 Preferred and Series E-3 Preferred. Series E-1 Preferred and Series E-3 Preferred are collectively referred to as the Series E Preferred. The Preferred Stock was initially recorded at its original purchase price, which represented fair value on the date of issuance, net of issuance costs, if any. The original purchase price per share of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred, and Series E Preferred is equal to $2.93, $2.93, $4.60, $4.00, and $2.93 per share, respectively.

The shares of Series B-1 Preferred, Series D-1 Preferred, and Series E Preferred are redeemable upon the request of the holders of at least 66 2/3% of outstanding shares of Series B-1 Preferred, voting as a separate class, and 51% of outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a separate class. In this event, the Company would be required to redeem the shares in three equal annual installments, beginning in September 2021, at the applicable original purchase price per share. All shares of Preferred Stock are redeemable in the event of a change of control at their liquidation preferences.

As all Preferred Stock is redeemable either at the option of the holder or upon an event outside the control of the Company (i.e., a change in control), the related amounts have been presented outside of stockholders' equity (deficit). In August and December 2003, the Company completed two closings of a private placement of Series B-1 Preferred, in which the Company issued a total of 10,853,363 shares at a price of $2.93 per share for gross proceeds of $31.8 million. In November and December 2004, the Company completed two further closings of Series B-1 Preferred, in which the Company issued a total of 15,017,065 shares at a price of $2.93 per share for gross proceeds of $44.0 million. The Series B-1 Preferred investors in these two final closings also purchased warrants for 2,325,000 shares of common stock at an exercise price of $0.38 per share, with an exercise period of five years from the date of purchase, for $0.019 cents per share of common stock covered by the warrants. In November 2009, the exercise period of these warrants was extended to December 31, 2011. In December 2012, the Company's Board of Directors reduced the number of shares exercisable under these warrant by 45% of the original shares and approved the extension of the exercise period until April 1, 2013 (Note 10). As of December 31, 2012, warrants to purchase 1,046,250 shares of common stock were outstanding.

In August 2006, the Company issued 2,173,913 shares of Series C-1 Preferred to JJDC at a price of $4.60 per share, for gross proceeds of $10.0 million (Note 5).

In April 2007, the Company issued 8,012,497 shares of Series D-1 Preferred at a price of $4.00 per share, for gross proceeds of $32.0 million. In connection with the issuance, the Series D-1 Preferred investors also purchased warrants for an aggregate of 1,201,875 shares of common stock at an exercise price of $0.38 per share, with an exercise period of five years from the date of purchase, for $0.01 cents per share of common stock covered by the warrants.

In August 2008, the Company repurchased 51,340, 127,984 and 37,500 shares of Series A-1 Preferred, Series B-1 Preferred and Series D-1 Preferred, respectively, and a warrant for 5,625 shares of common stock, for an aggregate purchase price of $82,000. The Company allocated the purchase price among the preferred shares and warrant based upon their respective fair values.

In November 2009, the Company issued 102,389 shares of Series E-1 Preferred upon the conversion of debt issued under a loan agreement. In June and December 2010, the Company issued 68,259 and 2,950,945 shares of Series E-1 Preferred, respectively, upon conversion of debt issued under a loan agreement.

In December 2010, the Company issued 5,687,700 shares of Series E-3 Preferred upon conversion of the JJDC convertible notes that were due in 2011 (Note 7).

As of March 31, 2013 (unaudited), convertible preferred stock balances were as follows (in thousands, except share amounts):

	Shares Authorized	Shares Issued and Outstanding	Aggregate Liquidation Preference
Series A-1	1,012,389	1,012,389	$ 5,246
Series B-1	29,671,222	29,671,222	148,264
Series C-1	6,000,000	2,173,913	15,319
Series D-1	7,974,997	7,974,997	47,149
Series E-1	3,200,000	3,121,593	20,000
Series E-3	7,400,000	5,687,700	23,881
Total	55,258,608	49,641,814	$ 259,859

As of December 31, 2012, convertible preferred stock balances were as follows (in thousands, except share amounts):

	Shares Authorized	Shares Issued and Outstanding	Aggregate Liquidation Preference
Series A-1	1,012,389	1,012,389	$ 5,187
Series B-1	29,671,222	29,671,222	146,549
Series C-1	6,000,000	2,173,913	15,122
Series D-1	7,974,997	7,974,997	46,520
Series E-1	3,200,000	3,121,593	19,820
Series E-3	7,400,000	5,687,700	23,552
Total	55,258,608	49,641,814	$ 256,750

As of December 31, 2011, convertible preferred stock balances were as follows (in thousands, except share amounts):

	Shares Authorized	Shares Issued and Outstanding	Aggregate Liquidation Preference
Series A-1	1,012,389	1,012,389	$ 4,949
Series B-1	29,671,222	29,671,222	139,575
Series C-1	6,000,000	2,173,913	14,320
Series D-1	7,974,997	7,974,997	43,961
Series E-1	3,200,000	3,121,593	19,086
Series E-3	7,400,000	5,687,700	22,216
Total	55,258,608	49,641,814	$ 244,107

The significant rights, privileges, and preferences of the Preferred Stock are as follows:

Election of Directors

The holders of Series B-1 Preferred are entitled to elect five members of the Company's Board of Directors, the holders of Series D-1 Preferred are entitled to elect one member of the Company's Board of Directors, and the holders of common stock are entitled to elect one member of the Company's Board of Directors, subject to certain restrictions. All remaining members of the Company's Board of Directors are elected by all of the stockholders voting on an as-if-converted basis.

Voting Rights

Preferred Stock carries voting rights equal to the number of shares of common stock into which it can be converted. Additionally, certain corporate actions may be exercised upon the approval of holders of 66 2/3% of the outstanding shares of Series B-1 Preferred and Series C-1 Preferred, voting together as a single class, and 51% of the outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a single class.

Dividends

All dividends are payable when and if declared by the Company's Board of Directors. The holders of Series E Preferred are entitled to cumulative dividends in preference to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred, and common stock. The holders of Series D-1 Preferred are entitled to cumulative dividends in preference to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, and common stock. The holders of Series B-1 Preferred and Series C-1 Preferred are entitled to cumulative dividends in preference to the holders of Series A-1 Preferred and common stock. The holders of Series A-1 Preferred are entitled to cumulative dividends in preference to the holders of common stock. The dividend rate is $0.2344, $0.32, $0.368, $0.2344, and $0.2344 per annum for each outstanding share of Series E Preferred, Series D-1 Preferred, Series C-1 Preferred, Series B-1 Preferred, and Series A-1 Preferred, respectively. Additionally, if dividends are paid to any holder of common stock, the holders of Preferred Stock will receive a dividend of a per share amount (on an as-if-converted to common stock basis) equal to the amount paid to the holders of common stock.

No dividends were declared as of December 31, 2012 and 2011. The aggregate cumulative dividends as of March 31, 2013, were $3.0 million ($0.54 per share), $1.7 million ($0.55 per share), $15.2 million ($1.91 per share), $5.3 million ($2.45 per share), $61.3 million ($2.07 per share), and $2.3 million ($2.25 per share) for Series E-3 Preferred, Series E-1 Preferred, Series D-1 Preferred, Series C-1 Preferred, Series B-1 Preferred, and Series A-1 Preferred, respectively. The aggregate cumulative dividends as of December 31, 2012, were $2.7 million ($0.48 per share), 1.5 million ($0.49 per share), $14.6 million ($1.83 per share), $5.1 million

($2.36 per share), $59.6 million ($2.01 per share), and $2.2 million ($2.19 per share) for Series E-3 Preferred, Series E-1 Preferred, Series D-1 Preferred, Series C-1 Preferred, Series B-1 Preferred, and Series A-1 Preferred, respectively.

Liquidation Preference

In the event of a liquidation, dissolution, winding up, or change in control of the Company, the liquidation preference of each stockholder class is to be paid in the following order, from available funds: first to the holders of Series E-1 Preferred and Series E-3 Preferred, second to the holders of Series D-1 Preferred, third to the holders of Series B-1 Preferred and Series C-1 Preferred, and fourth to the holders of Series A-1 Preferred. After payment of the Preferred Stock liquidation preferences, the remaining assets of the Company are to be distributed ratably to all holders of common stock and Preferred Stock on an as-if-converted basis. The liquidation preference of Series E-1 Preferred, Series E-3 Preferred, Series D-1 Preferred, Series C-1 Preferred, Series B-1 Preferred, and Series A-1 Preferred is equal to $5.86, $3.66, $4.00, $4.60, $2.93, and $2.93 per share, respectively, plus any cumulative unpaid dividends. If there are insufficient funds available to satisfy each liquidation preference in its entirety, the holders of Preferred Stock are to be paid a pro rata amount based on their liquidation preference.

Conversion Rights

Each share of Preferred Stock is convertible at any time, at the option of the holder, into shares of the Company's common stock at the applicable conversion rate. The conversion rate for each of the series of Preferred Stock is currently 1:1, except for the Series D-1 Preferred, which has a conversion rate of 1.365:1. With respect to the Series E Preferred, Series D-1 Preferred, Series B-1 Preferred, and Series A-1 Preferred, if the Company issues common stock or securities convertible into or exercisable for shares of common stock at a price less than the respective original purchase price per share, the conversion rate of such stock shall be adjusted to the lowest price per share paid in such issuance. The conversion rate for Preferred Stock will not be adjusted for common stock issuances on the exercise of options or warrants issued to employees, directors, or consultants of the Company and in certain other circumstances.

Each share of Preferred Stock automatically converts into common stock upon the approval of holders of 66 2/3% of the outstanding shares of Series B-1 Preferred, voting as a separate class, and 51% of the outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a separate class, or upon the closing of an underwritten public offering of the Company's common stock pursuant to an effective registration statement under the Securities Act of 1933, as amended, at a per share price of at least $8.00, and raising aggregate gross proceeds of at least $30.0 million. In connection with the next sale and issuance of capital stock of the Company, with aggregate proceeds to the Company of not less than $1,000,000, each holder of the Company's preferred stock that participates in such financing for between 1% and up to 99% of such holders "*Pro Rata Share*" (as defined in the Company's certificate of incorporation) shall have each shares of preferred stock represented by such participation amount convertible into four shares of common stock and the balance of any shares of preferred stock convertible at the applicable conversion rate as defined in the certificate of incorporation. Any holder that participates in such financing for between 100% and 300% of such holder's Pro Rata Share (the "*Participation Multiple*") shall have each shares of preferred stock convert into shares of common stock by multiplying the product of (y) the aggregate number of shares of preferred stock held by such holder multiplied by the applicable Participation Multiple and (z) four (4).

Upon any conversion, any declared and unpaid dividends shall be paid to the holders of Preferred Stock in cash, or to the extent sufficient funds are not legally available, in common stock at the common stock's fair market value.

Rights of First Refusal

Pursuant to the Company's By-laws and a Right of First Refusal and Co-Sale Agreement, the Company has the right to purchase any outstanding common stock that is available or offered for sale prior to an initial public

offering. Additionally, if certain holders of the Company's common stock and/or holders of the Company's Series E Preferred, Series D-1 Preferred, Series C-1 Preferred, or Series B-1 Preferred wish to sell any of their stock, they are required to offer the stock for sale under the same terms and conditions first to the Company and then to the holders of the Company's Series E Preferred, Series D-1 Preferred, Series C-1 Preferred, and Series B-1 Preferred. Certain holders of Preferred Stock have the right to participate in future financings of the Company, subject to their pro rata share, assuming full conversion and exercise of outstanding warrants or options held by them. The right expires upon the earlier of an initial public offering or a change in control of the Company.

10. Common Stock

The Company is authorized to issue 74,000,000 shares of common stock. In November 2009, the Company's Board of Directors approved the extension of the time period in which the holders of warrants to purchase 2,325,000 shares of common stock are able to exercise their warrants that were issued in connection with the issuance of Series B-1 Preferred. The exercise periods of the warrants that originally ended in November 2009 were extended to December 31, 2010. The value of the exercise period extension of $0.1 million was recorded to accumulated deficit and was determined using the Black-Scholes valuation model, with the following inputs used to determine the value of the modification: fair value of the Company's common stock of $0.20 per share, expected life of the modified warrants of 1.10 years, risk-free interest rate of 0.41%, and expected common stock price volatility of 97%.

In December 2010, the Company's Board of Directors modified the warrants to purchase common stock that were issued in connection with the issuance of Series B-1 Preferred. The number of shares exercisable under the warrants issued with the issuance of the Series B-1 Preferred was reduced by 50% to 1,162,500, and the exercise period was extended to December 31, 2012. In December 2012, the Company's Board of Directors again modified the warrants to purchase common stock that were issued in connection with the issuance of Series B-1 Preferred. The number of shares exercisable under the warrants issued with the issuance of the Series B-1 Preferred was reduced by 45% of the original shares to 1,046,465, and the exercise period was extended to April 1, 2013. The extension of the agreement did not make a material change in value.

In December 2010, the Company's Board of Directors modified the warrants to purchase common stock that were issued in connection with the issuance of Series D-1 Preferred. The exercise period of the warrants issued in connection with the Series D-1 Preferred issuance was extended to April 13, 2013. The charge related to the modifications to these warrants of $0.1 million was recorded to accumulated deficit and was determined using the Black-Scholes valuation model, with the following inputs used to determine the charge related to the modification: fair value of the Company's common stock of $0.20 per share, expected life of the modified warrants of one to two years, risk-free interest rate of 0.50%, and expected common stock price volatility of 83%.

As of March 31, 2013 and December 31, 2012, the Company had reserved shares of authorized but unissued common stock as follows:

	Shares Reserved March 31, 2013 (unaudited)	Shares Reserved December 31, 2012
Conversion of convertible preferred stock	49,641,814	49,641,814
Outstanding common stock warrants	2,242,679	2,242,500
Equity incentive plans	11,162,946	11,167,651
Total reserved shares of common stock	63,047,439	63,051,965

In addition to the above reserved shares, the Company has reserved stock for issuance upon conversion of the outstanding convertible notes (Note 7).

11. Stock Plans and Stock-Based Compensation

Stock Plans

In August 2003, the Company's stockholders approved the 2003 Equity Incentive Plan (2003 Plan), under which shares of common stock are reserved for the granting of options, stock bonuses, and restricted stock awards by the Company. These awards may be granted to employees, members of the Board of Directors, and consultants to the Company. The 2003 Plan has a term of ten years and replaced the 1993 Stock Option Plan, which had similar terms. The 2003 Plan permits the Company to (i) grant incentive stock options to directors and employees at not less than 100% of the fair value of common stock on the date of grant; (ii) grant nonqualified options to employees, directors, and consultants at not less than 85% of fair value; (iii) award stock bonuses; and (iv) grant rights to acquire restricted stock at not less than 85% of fair value. Options generally vest over a four- or five-year period and have a term of ten years. Options granted to 10% stockholders have a maximum term of five years and require an exercise price equal to at least 110% of the fair value on the date of grant. The exercise price of all options granted to date has been at least equal to the fair value of common stock on the date of grant. Restricted stock units granted in 2007 vested over a four- or five-year period, subject to certain performance conditions, and terminated on August 19, 2012.

Stock Plan Activity

In March 2008, the Company's Board of Directors approved an exchange offer program (the Exchange Offer) under which current employees, directors, and scientific advisory board members could elect to exchange all of their unexercised stock options with an exercise price of greater than $1.60 and cancel all of their restricted stock units in exchange for new stock options for the same number of shares as the unexercised stock options being exchanged. The newly granted options would be issued under the 2003 Plan and have an exercise price equal to the fair value of the Company's common stock on the date of grant, and a term of ten years. New options replacing vested canceled options would be fully vested upon grant and new options replacing unvested canceled options would vest over a three-year period. In June 2008, under this program, unexercised options for 3,667,355 shares and 600,423 restricted stock units were canceled and exchanged for 3,667,355 new options at an exercise price of $0.50 per share. For stock options granted under the Exchange Offer, the Company will recognize the remaining unamortized expense related to the original options as of the exchange date of $5.2 million over the vesting period of the new awards. The incremental expense resulting from the Exchange Offer of $0.5 million will also be recognized over the same period. In the years ended December 31, 2012 and 2011, the Company recognized $0.0 million and $0.8 million, respectively, of noncash stock-based compensation expense related to the new awards, including a portion of the unamortized expense related to the original options as of the exchange date.

As of March 31, 2013, December 31, 2012 and 2011, 3,160,944, 2,918,190 shares and 1,470,306 shares were available for grant under the 2003 Plan.

The following table summarizes stock option activity:

	Shares Subject to Outstanding Options	Weighted-Average Exercise Price of Options	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Outstanding as of December 31, 2011	9,697,625	$ 0.45	4.58	$ 3
Vested and expected to vest as of December 31, 2011	9,637,325	$ 0.45	4.55	$ 3
Exercisable as of December 31, 2011	7,991,814	$ 0.50	3.87	$ 2
Options granted	1,200,000	.06		
Options exercised	(1,500)	.20		
Options forfeited	(885,559)	.18		
Options expired	(1,761,625)	.42		
Outstanding as of December 31, 2012	8,248,941	$ .43	4.43	$ 0
Vested and expected to vest as of December 31, 2012	8,211,373	$ .43	4.41	$ 0
Exercisable as of December 31, 2012	6,983,971	$ .49	3.84	$ 0
Options granted	—			
Options exercised	(4,186)	.06		
Options forfeited	(82,482)	.15		
Options expired	(160,272)	.44		
Outstanding as of March 31, 2013	8,002,002	.43	4.21	$ 0
Vested and expected to vest as of March 31, 2013	7,974,784	.43	4.20	$ 0
Exercisable as of March 31, 2013 (unaudited)	6,992,886	.48	3.68	$ 0

The following table summarizes information about stock options outstanding as of December 31, 2012:

	Options Outstanding		Options Exercisable
Exercise Price	Number of Shares	Weighted-Average Remaining Contractual Term (Years)	Number of Shares
$0.06	1,148,483	8.47	266,733
$0.12	75,000	6.42	68,750
$0.20	1,616,105	6.02	1,241,988
$0.30	71,000	6.14	68,146
$0.38	2,552,221	1.35	2,552,221
$0.50	2,322,795	4.81	2,322,795
$0.69	15,000	2.43	15,000
$0.79	170,000	2.58	170,000
$3.00	278,338	3.70	278,338
	8,248,942	4.43	6,983,971

No restricted stock units were granted in the quarter ended March 31, 2013 or the years ended December 31, 2012 and 2011. No restricted stock units vested in the quarter ended March 31, 2013 or the years ended December 31, 2012 and 2011. As of March 31, 2013, December 31, 2012 and 2011, there were 0 and 700 restricted stock units outstanding, respectively, with a weighted-average grant date fair value of $3.00 per share and a weighted-average remaining contractual term of 0.00 and 0.64 years, respectively. No expense has been recorded to date related to the Company's restricted stock units, as no restricted stock units have vested. Vesting of the restricted stock units is contingent upon either an initial public offering of the Company's common stock or a change in control.

Grant Date Fair Value

The following table presents the weighted-average assumptions the Company used with the Black-Scholes valuation model to derive the grant date fair value-based measurements of employee and director stock options and the resulting estimated weighted-average grant date fair-value-based measurements per share:

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2011	2013	2012
			(unaudited)	
Weighted-average assumptions:				
Expected term	6.25 yrs	6.25 yrs	6.25 yrs	6.25 yrs
Expected volatility	100%	100%	104%	96%
Risk-free interest rate	1.01%	1.27%	1.12%	2.37%
Expected dividend yield	0%	0%	0%	0%
Weighted-average grant date fair value-based measurement per share	$ 0.05	$ 0.14	$ 0.05	$ 0.05

Expected Term

The Company does not believe it can place reliance on its historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term. Therefore, for stock option grants made during the quarter ended March 31, 2013 and years ended December 31, 2012 and 2011, the Company has opted to use the simplified method for estimating the expected term.

Expected Volatility

As the Company does not have any trading history for its common stock, the expected stock price volatility for the Company's common stock was estimated by considering the volatility rates of publicly traded peer entities within the life sciences industry.

Risk-Free Interest Rate

The risk-free interest rate assumption was based on U.S. Treasury instruments with constant maturities whose term was consistent with the expected term of stock options granted by the Company.

Expected Dividend Yield

The Company has never declared or paid cash dividends and does not plan to pay cash dividends in the foreseeable future. Consequently, the Company uses an expected dividend yield of zero.

Common Stock Fair Value

The Company's Board of Directors has historically determined the fair value of the Company's common stock for the purpose of pricing the Company's equity awards to employees, directors, and consultants. As there

has been no public market for the Company's common stock, the Company's Board of Directors, in making such fair value determinations, considered a number of factors, including the price at which Preferred Stock was issued to outside investors in arm's-length transactions, the rights, preferences, and privileges of the Preferred Stock relative to the common stock, important developments relating to advancement of the Company's technology and clinical programs, the Company's stage of development and business strategy, the likelihood of achieving a liquidity event for the shares of common stock, such as an initial public offering or sale of the Company, prevailing market conditions, and the market prices of various publicly held life sciences companies. Additionally, the Board of Directors considered contemporaneous valuations provided by third-party valuation specialists.

Forfeitures

The Company estimates forfeitures at the time of grant and revises these estimates in subsequent periods if actual forfeitures differ from those estimates. Changes in forfeiture estimates impact compensation in the period in which the change occurs.

The total intrinsic value of options exercised in the quarter ended March 31, 2013 and years ended December 31, 2012 and 2011, was $0, $0 and $3,000, respectively.

Vested and Unvested Awards

The total fair value of options vested in the quarter ended March 31, 2013 and years ended December 31, 2012 and 2011, was $0.0 million, $0.1 million and $0.1 million, respectively.

As of March 31, 2013 and December 31, 2012, the total compensation expense related to unvested employee stock options to be recognized in future periods, excluding estimated forfeitures, was $0.1 million and $0.2 million, respectively. The weighted-average period over which this compensation expense is expected to be recognized is 0.9 year and 2.0 years as of March 31, 2013 and December 31, 2012, respectively. The weighted-average period over which compensation expense related to these restricted stock units is expected to be recognized is not determinable, as vesting is contingent upon future events.

Stock-Based Compensation Expense

Employee and Director Expense

Employee and director stock-based compensation expense recorded was as follows (in thousands):

	Year Ended December 31		Three Months Ended March 31,	
	2012	2011	2013	2012
			(unaudited)	
Research and development	$ 26	$ 380	$ 6	$ 15
General and administrative	54	377	12	14
Total	$ 80	$ 757	$ 18	$ 29

In January 2004, the Company's Board of Directors canceled outstanding employee options under the 1993 Stock Option Plan and replaced them with new options to purchase 97,767 shares of common stock under the 2003 Plan at an exercise price of $0.38 per share. These replacement options were fully vested on the grant date and are exercisable for ten years, or 18 months after an initial public offering, if earlier. All replacement options are being accounted for as variable from the date of issuance to the date the options are exercised, forfeited or expire. During the quarter ended March 31, 2013 and years ended December 31, 2012 and 2011, as a result of decreases in the fair market value of its common stock, the Company did not record any compensation expense related to these options.

Non-Employee Expense

The Company has issued options to purchase shares of common stock to members of its Scientific Advisory Board (SAB) and certain consultants. The stock options have various exercise prices, a term of ten years, and vest over periods up to sixty months. In 2011, the Company did not grant any options to its SAB members or consultants. In 2012 the Company granted options to purchase 250,000 to its SAB members and consultants. As of December 31, 2012, options to purchase 272,853 shares of common stock remained unvested, and compensation related to these stock options is subject to periodic adjustment as the shares vest. The Company recorded $1,000 (unaudited), $1,000 and $6,000 of expense in the quarter ended March 31, 2013 and years ended December 31, 2012 and 2011, respectively, related to these awards.

The Company has not recognized, and does not expect to recognize in the near future, any tax benefit related to employee stock-based compensation costs.

12. 401(k) Plan

The Company provides a qualified 401(k) savings plan for its employees. All employees are eligible to participate, provided they meet the requirements of the plan. While the Company may elect to match employee contributions, no such matching contributions have been made through March 31, 2013, December 31, 2012 and 2011.

13. Income Taxes

No provision for U.S. income taxes exists due to tax losses incurred in all periods presented. Deferred income taxes reflect the tax effects of net operating loss and tax credit carryforwards and the net temporary differences between the carrying amounts of assets and liabilities for financial reporting and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets are as follows (in thousands):

	December 31	
	2012	2011
Deferred tax assets:		
Federal and state net operating loss carryforwards	$ 62,745	$ 57,901
Capitalized research and development	22,490	22,541
Federal and state tax credit carryforwards	6,153	6,059
Other	1,200	1,390
Total deferred tax assets	92,588	87,891
Valuation allowance	(92,588)	(87,891)
Net deferred tax assets	$ —	$ —

Realization of the net deferred tax assets is dependent upon future taxable income, if any, the amount and timing of which is uncertain. Based on available objective evidence, management believes it more likely than not that the Company's deferred tax assets are not realizable. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The net valuation allowance increased by $4.5 million and $2.0 million during the years ended December 31, 2012 and, 2011, respectively.

As of December 31, 2012, we had federal and state net operating loss carryforwards of approximately $156.0 million to offset future federal income taxes which will expire beginning in 2024 through 2032 and the state income taxes which will expire beginning in 2014 through 2032. Current federal and state tax laws include substantial restrictions on the utilization of net operating losses and tax credits in the event of an ownership change. Even if the carryforwards are available, they may be subject to annual limitations, lack of future taxable income, or future ownership changes that could result in the expiration of the carryforwards before they are utilized. If we determine in the future that we will be able to realize all or a portion of our net operating loss carryforwards, an adjustment to our net operating loss carryforwards would increase net income in the period in which we make such a determination.

Utilization of the net operating loss and tax credits carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating loss and tax credit carryforwards before utilization.

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

	Total
Balance as of December 31, 2010	$1,543
Increases related to 2011 tax positions	168
Balance as of December 31, 2011	1,711
Increases related to 2012 tax positions	36
Balance as of December 31, 2012	$1,747

The unrecognized tax benefits, if recognized, would not have an impact on the Company's effective tax rate. The Company does not expect a significant change to its unrecognized tax benefits over the next twelve months. The unrecognized tax benefits may increase or change during the next year for items that arise in the ordinary course of business.

The Company files income tax returns in the U.S. federal and California jurisdiction and is not currently under examination by federal, state, or local taxing authorities for any open tax years. The tax years 1998 through 2012 remain open to examination by the major taxing authorities.

14. Related-Party Transactions

The Company paid a former member of its Board of Directors, who is also a member of its Scientific and Clinical Advisory Boards, a total of $60,000 per year in the years ended December 31, 2012 and 2011, respectively, and $15,000 for the quarter ended March 31, 2013, in monthly cash retainers. The Company also issued options to purchase shares of common stock to this individual in his capacity as a member of its Scientific Advisory Board (Note 11).

15. Subsequent Events

Contingent Severance Obligation

In January 2013, the Company Board of Directors approved a lump-sum severance benefit to employees in the event of the Company's cessation of operations due to bankruptcy. The severance benefit had not been used previously and is due to expire on January 1, 2014. It contained no service requirement and because it was not considered to be company policy, it was not communicated to all employees.

Convertible Notes – JJDC

On March 18, 2013, the Company's equity and loan facility agreement with JJDC was amended. Under the terms of the amendment, the maturity dates of the convertible notes outstanding were extended to August 1, 2013, and the payment of the note is to rank junior in priority for up to an aggregate of $1.1 million in payments to the Company's officers and employees in connection with severance obligations. On July 31, 2013, the Company and JJDC entered into a further amendment to the loan facility to extend the maturity date of the convertible notes outstanding until December 31, 2013.

Exhibit 3.1

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
METABOLEX, INC.

Harold Van Wart hereby certifies that:

ONE: This company was originally incorporated in the State of Delaware on October 5, 1988 under the name Transtech Corporation. This company changed its name to Transplantation Technology, Inc. by an amendment filed on April 27, 1989. This company changed its name from Transplantation Technology, Inc. to Transtech Medical, Inc. by an amendment filed on June 15, 1992. This Company changed its name from Transtech Medical, Inc. to Metabolex, Inc. by an amendment filed on September 30, 1994.

TWO: He is the duly elected and acting Chief Executive Officer of Metabolex, Inc., a Delaware corporation.

THREE: The Certificate of Incorporation of this company is hereby amended and restated to read as follows:

I.

The name of this company is CymaBay Therapeutics, Inc. (the "Company").

II.

The address of the Company's registered office in the State of Delaware is 2711 Centerville Road, Suite 400, County of New Castle, Wilmington, Zip Code 19808. The name of the Company's registered agent at such address is The Prentice-Hall Corporation System, Inc.

III.

The purpose of the Company is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("DGCL").

IV.

A. The Company is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that the Company is authorized to issue is One Hundred Twenty-Nine Million Two Hundred Fifty-Eight Thousand Six Hundred Eight (129,258,608) shares, Seventy-Four Million (74,000,000) shares of which shall be Common Stock (the "Common Stock") and Fifty-Five Million Two Hundred Fifty-Eight Thousand Six Hundred Eight (55,258,608) shares of which shall be Preferred Stock (the "Preferred Stock"). The Preferred Stock shall have a par value of $0.0001 per share and the Common Stock shall have a par value of $0.0001 per share.

B. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by the affirmative vote of the holders of a majority of the stock of the Company (voting together on an as-if-converted basis), irrespective of the provisions of Section 242(b)(2) of the DGCL.

C. One Million Twelve Thousand Three Hundred Eighty-Nine (1,012,389) of the authorized shares of Preferred Stock are hereby designated "Series A-1 Preferred Stock" (the "Series A-1 Preferred"), Twenty-Nine Million Six Hundred Seventy-One Thousand Two Hundred Twenty-Two (29,671,222) of the authorized shares of Preferred Stock are hereby designated "Series B-1 Preferred Stock" (the "Series B-1 Preferred"), Six Million (6,000,000) of the authorized shares of Preferred Stock are hereby designated "Series C-1 Preferred Stock" (the "Series C-1 Preferred"), Seven Million Nine Hundred Seventy-Four Thousand Nine Hundred Ninety-Seven (7,974,997) of the authorized shares of Preferred Stock are hereby designated "Series D-1 Preferred Stock" (the "Series D-1 Preferred"), Three Million Two Hundred Thousand (3,200,000) of the authorized shares of Preferred Stock are hereby designated "Series E-1 Preferred Stock" (the "Series E-1 Preferred") and Seven Million Four Hundred Thousand (7,400,000) of the authorized shares of Preferred Stock are hereby designated "Series E-3 Preferred Stock" (the "Series E-3 Preferred," together with the Series E-1 Preferred, the "Series E Preferred"). The Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred and Series E Preferred are collectively referred to herein as the "Series Preferred."

D. The rights, preferences, privileges, restrictions and other matters relating to the Series Preferred are as follows:

1. DIVIDEND RIGHTS.

(a) Holders of Series E Preferred, in preference to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred and Common Stock, shall be entitled to receive, when and as declared by the Board of Directors (the "Board"), but only out of funds that are legally available therefor, cash dividends at the rate of $0.2344 per annum on each outstanding share of Series E Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof). Such dividends shall accrue from day to day, whether or not declared, and shall be cumulative; *provided, however*, that except as set forth in subsections 1(f), 3(a), 3(b), 3(c) and 3(d), the Company shall be under no obligation to pay such dividends.

(b) After full payment of dividends as set forth in Section 1(a) above, holders of Series D-1 Preferred, in preference to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred and Common Stock, shall be entitled to receive, when and as declared by the Board, but only out of funds that are legally available therefor, cash dividends at the rate of $0.32 per annum on each outstanding share of Series D-1 Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof). Such dividends shall accrue from day to day, whether or not declared, and shall be cumulative; *provided, however*, that except as set forth in subsections 1(f), 3(a), 3(b), 3(c) and 3(d), the Company shall be under no obligation to pay such dividends.

(c) After full payment of dividends as set forth in Sections 1(a) and 1(b) above, holders of Series B-1 Preferred and Series C-1 Preferred, in preference to the holders of Series A-1 Preferred and Common Stock, shall be entitled to receive, when and as declared by the Board, but only out of funds that are legally available therefor, cash dividends at the rate of (i) in the case of the Series B-1 Preferred, $0.2344 per annum on each outstanding share of Series B-1 Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) and (ii) in the case of the Series C-1 Preferred, $0.368 per annum on each outstanding share of Series C-1 Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof). Such dividends shall accrue from day to day, whether or not declared, and shall be cumulative; *provided, however*, that except as set forth in subsections 1(f), 3(a), 3(b), 3(c) and 3(d), the Company shall be under no obligation to pay such dividends.

(d) After full payment of dividends as set forth in Sections 1(a), 1(b) and 1(c) above, holders of Series A-1 Preferred, in preference to the holders of Common Stock, shall be entitled to receive, when and as declared by the Board, but only out of funds that are legally available therefor, cash dividends at the rate of $0.2344 per annum on each outstanding share of Series A-1 Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof). Such dividends shall accrue from day to day, whether or not declared, and shall be cumulative; *provided however*, that except as set forth in subsections 1(f), 3(a), 3(b), 3(c) and 3(d), the Company shall be under no obligation to pay such dividends.

(e) So long as any shares of Series Preferred are outstanding, the Company shall not pay or declare any dividend, whether in cash or property, or make any other distribution on the Common Stock, or purchase, redeem or otherwise acquire for value any shares of Common Stock until all dividends as set forth in Sections 1(a), 1(b), 1(c) and 1(d) above on the Series Preferred shall have been paid or declared and set apart for payment, except for:

(i) acquisitions of Common Stock by the Company pursuant to agreements that permit the Company to repurchase such shares at cost (or the lesser of cost or fair market value) upon termination of services to the Company; or

(ii) acquisitions of Common Stock in exercise of the Company's right of first refusal to repurchase such shares.

(f) In the event dividends are paid on any share of Common Stock (other than as provided in subsections 1(e)(i) and 1(e)(ii) above), the Company shall pay an additional dividend on all outstanding shares of Series Preferred in a per share amount equal (on an as-if-converted to Common Stock basis) to the amount paid or set aside for each share of Common Stock.

(g) The provisions of Sections 1(e) and 1(f) shall not apply to a dividend payable in Common Stock, or any repurchase of any outstanding securities of the Company that is approved by (i) the Board, (ii) holders of at least sixty-six and two-thirds percent (66 2/3%) of the outstanding Series B-1 Preferred (voting as a separate class) and (iii) holders of at least fifty-one percent (51%) of the outstanding Series D-1 Preferred and Series E Preferred (voting together as a single class on an as-if-converted basis).

(h) The holders of the Series Preferred expressly waive their rights, if any, as described in California Code Sections 502 and 503 as they relate to repurchases of shares of Common Stock upon termination of employment or service as a consultant or director.

2. VOTING RIGHTS.

(a) General Rights. Each holder of shares of the Series Preferred shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Series Preferred could be converted (pursuant to Section 5 hereof) immediately after the close of business on the record date fixed for such meeting or the effective date of such written consent and shall have voting rights and powers equal to the voting rights and powers of the Common Stock and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Company. Except as otherwise provided herein or as required by law, the Series Preferred shall vote together with the Common Stock at any annual or special meeting of the stockholders and not as a separate class, and may act by written consent in the same manner as the Common Stock. Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Series Preferred held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

(b) Separate Vote of Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred and Series E Preferred. For so long as any shares of Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred or Series E Preferred remain outstanding, in addition to any other vote or consent required herein or by law, the vote or written consent of the holders of (i) at least sixty-six and two-thirds percent (66 2/3%) of the outstanding Series B-1 Preferred and Series C-1 Preferred, voting together as a single class, and (ii) at least fifty-one percent (51%) of the outstanding Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-if-converted basis, shall be necessary for effecting or validating the following actions by the Company or any subsidiary of the Company:

(i) Any amendment, alteration, or repeal of any provision of the Certificate of Incorporation or the Bylaws of the Company (including, without limitation, any filing of a Certificate of Designation or by way of merger or otherwise);

(ii) any increase or decrease in the authorized number of shares of Common Stock, Preferred Stock or Series Preferred;

(iii) any redemption, repurchase, payment of dividends or other distributions with respect to any of the Company's equity securities (except for acquisitions of Common Stock by the Company permitted by Sections 1(e)(i) or 1(e)(ii) and the redemption of the Series B-1 Preferred, Series D-1 Preferred and Series E Preferred pursuant to Section 6);

(iv) any acquisition of an equity interest in, or all or substantially all of the assets of, any other entity;

(v) any issuance of debt (except (i) as to accounts payable and equipment lease lines incurred in the ordinary course of business, so long as the principal and interest payments of such equipment lease lines do not exceed ten million dollars ($10,000,000) in the aggregate at any time outstanding and (ii) for issuance of debt pursuant to credit facilities in existence as of the date of this Amended and Restated Certificate of Incorporation);

(vi) any increase or decrease in the authorized number of members of the Board;

(vii) any forgiveness of, waiver or change to, the payment terms of any indebtedness for borrowed money currently owed to the Company;

(viii) the appointment or dismissal of the Company's chief executive officer or chief financial officer;

(ix) any guarantee of the obligations of any other person or entity;

(x) any dissolution, voluntary bankruptcy or liquidation of the Company or any subsidiary of the Company;

(xi) authorize, issue, or obligate itself to issue, any equity securities or securities exchangeable for, or convertible into, equity securities (except for shares of Common Stock and "Convertible Securities" that are not deemed "Additional Shares of Common Stock" (each as defined in Section 5(i));

(xii) any agreement by the Company or its stockholders regarding an Asset Transfer or Acquisition (each as defined in Section 4(b));

(xiii) any creation or establishment of a pledge, mortgage, lien (other than those that may be unilaterally imposed by domestic tax authorities or otherwise by operation of law) or security interest in or over the Company's assets (other than to secure equipment lease debt and as may otherwise be imposed by operation of law); and

(xiv) any change to this Section 2(b).

(c) Election of Board of Directors.

(i) For so long as at least Five Million (5,000,000) shares of Series B-1 Preferred remain outstanding (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) the holders of Series B-1 Preferred, voting as a separate class, shall be entitled to elect five (5) members of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors;

(ii) For so long as at least Two Million Five Hundred Thousand (2,500,000) shares of Series D-1 Preferred remain outstanding (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) the holders of Series D-1 Preferred, voting as a separate class, shall be entitled to elect one (1) member of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such director and to fill any vacancy caused by the resignation, death or removal of such director;

(iii) The holders of Common Stock, voting as a separate class, shall be entitled to elect one (1) member of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such director and to fill any vacancy caused by the resignation, death or removal of such director; and

(iv) The holders of Common Stock and Series Preferred, voting together as a single class on an as-if-converted basis, shall be entitled to elect all remaining members of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors.

(v) No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the Company is subject to Section 2115 of the California General Corporation Law ("CGCL"). During such time or times that the Company is subject to Section 2115(b) of the CGCL, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder desires. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

(vi) During such time or times that the Company is subject to Section 2115(b) of the CGCL, the Board or any individual director may be removed from office at any time without cause by the affirmative vote of the holders of at least a majority of the outstanding shares entitled to vote for such director; *provided, however*, that unless the entire Board is removed, no individual director may be removed when the votes cast against such director's removal, or not consenting in writing to such removal, would be sufficient to elect that

director if voted cumulatively at an election that the same total number of votes were cast (or, if such action is taken by written consent, all shares entitled to vote were voted) and the entire number of directors authorized to be elected by holders of such series or class at the time of such director's most recent election were then being elected.

3. LIQUIDATION RIGHTS.

(a) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, before any distribution or payment shall be made to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred, Series D-1 Preferred or Common Stock, the holders of Series E Preferred shall be entitled to be paid out of the assets of the Company legally available for distribution, or the consideration received in such transaction, (i) in the case of the holders of Series E-1 Preferred, an amount per share of Series E-1 Preferred equal to $5.86 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) plus accrued and unpaid dividends and (ii) in the case of the holders of Series E-3 Preferred, an amount per share of Series E-3 Preferred equal to $3.6625 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) plus accrued and unpaid dividends. If, upon any such liquidation, dissolution, or winding up, the assets of the Company (or the consideration received in such transaction) shall be insufficient to make payment in full to all holders of Series E Preferred of the liquidation preference set forth in this Section 3(a), then such assets (or consideration) shall be distributed among the holders of Series E Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled hereunder.

(b) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, after payment of the full liquidation preference set forth in Section 3(a) above, before any distribution or payment shall be made to the holders of Series A-1 Preferred, Series B-1 Preferred, Series C-1 Preferred or Common Stock, the holders of Series D-1 Preferred shall be entitled to be paid out of the assets of the Company legally available for distribution, or the consideration received in such transaction, an amount per share of Series D-1 Preferred equal to $4.00 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) plus accrued and unpaid dividends. If, upon any such liquidation, dissolution, or winding up, the assets of the Company (or the consideration received in such transaction) shall be insufficient to make payment in full to all holders of Series D-1 Preferred of the liquidation preference set forth in this Section 3(b), then such assets (or consideration) shall be distributed among the holders of Series D-1 Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled hereunder.

(c) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, after payment of the full liquidation preference set forth in Sections 3(a) and 3(b) above, before any distribution or payment shall be made to the holders of Series A-1 Preferred or Common Stock, the holders of Series B-1 Preferred and Series C-1 Preferred shall be entitled to be paid out of the assets of the Company legally available for distribution, or the consideration received in such transaction, (i) in the case of the holders of

Series B-1 Preferred, an amount per share of Series B-1 Preferred equal to $2.93 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) plus accrued and unpaid dividends and (ii) in the case of the holders of Series C-1 Preferred, an amount per share of Series C-1 Preferred equal to $4.60 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) plus accrued and unpaid dividends. If, upon any such liquidation, dissolution, or winding up, the assets of the Company (or the consideration received in such transaction) shall be insufficient to make payment in full to all holders of Series B-1 Preferred and Series C-1 Preferred of the liquidation preference set forth in this Section 3(c), then such assets (or consideration) shall be distributed among the holders of Series B-1 Preferred and Series C-1 Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled hereunder.

(d) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, after payment of the full liquidation preference set forth in Sections 3(a), 3(b) and 3(c) above, before any distribution or payment shall be made to the holders of any Common Stock, the holders of Series A-1 Preferred shall be entitled to be paid out of the assets of the Company legally available for distribution, or the consideration received in such transaction, an amount per share of Series A-1 Preferred equal to $2.93 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof) plus accrued and unpaid dividends. If, upon any such liquidation, dissolution, or winding up, the assets of the Company (or the consideration received in such transaction) shall be insufficient to make payment in full to all holders of Series A-1 Preferred of the liquidation preference set forth in this Section 3(d), then such assets (or consideration) shall be distributed among the holders of Series A-1 Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled hereunder.

(e) After the payment of the full liquidation preference of the Series Preferred as set forth in Sections 3(a), 3(b), 3(c) and 3(d), the remaining assets of the Company legally available for distribution (or the consideration received in such transaction), if any, shall be distributed ratably to the holders of Common Stock and Series Preferred on an as-if-converted to Common Stock basis.

4. ASSET TRANSFER OR ACQUISITION RIGHTS.

(a) Upon the closing of any Acquisition or Asset Transfer each holder of Series Preferred shall be entitled to receive, for each share of Series Preferred then held, out of the proceeds of such Acquisition or Asset Transfer, the amount of cash, securities or other property to which such holder would be entitled to receive in a liquidation pursuant to Section 3.

(b) For the purposes of this Section 4: (i) “Acquisition” shall mean the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any merger, tender offer, stock sale, stock exchange, reorganization or other business combination) in which the holders of the Company’s issued and outstanding voting securities immediately prior to such transaction, do not own or control at least a majority of the combined voting power of the voting securities of the surviving entity (or its

parent) in substantially the same proportion as their ownership prior to such transaction (except as provided herein or in connection with an internal restructuring, reorganization or recapitalization of the Company); *provided* that an Acquisition shall not include (x) any consolidation or merger effected exclusively to change the domicile of the Company or (y) any transaction or series of transactions that are principally for bona fide equity financing purposes in which cash is received by the Company or indebtedness of the Company is cancelled or converted or a combination thereof and (ii) "Asset Transfer" shall mean a sale, lease or other disposition of all or substantially all of the assets of the Company or the exclusive license of substantially all of the intellectual property of the Company to a third party in one transaction or series of related transactions. Notwithstanding the foregoing, any of the above occurrences shall not be deemed an Acquisition or Asset Transfer upon the written election of holders of (i) at least sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of Series B-1 Preferred, voting as a separate class, and (ii) at least fifty-one percent (51%) of the outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-if-converted basis.

(c) In any Acquisition or Asset Transfer, if the consideration to be received is securities of a corporation or other property other than cash, its value will be deemed its fair market value as determined in good faith by the Board.

5. CONVERSION RIGHTS.

The holders of the Series Preferred shall have the following rights with respect to the conversion of the Series Preferred into shares of Common Stock (the "Conversion Rights"):

(a) Optional Conversion. Subject to and in compliance with the provisions of this Section 5, any shares of Series Preferred may, at the option of the holder, be converted at any time into fully-paid and nonassessable shares of Common Stock. The number of shares of Common Stock to which a holder of Series Preferred shall be entitled upon conversion shall be the product obtained by multiplying the "Series Preferred Conversion Rate" then in effect (determined as provided in Section 5(b)) by the number of shares of Series Preferred being converted.

(b) Series Preferred Conversion Rate. The conversion rate in effect at any time for conversion of the Series Preferred (the "Series Preferred Conversion Rate") shall be the quotient obtained by dividing the applicable Original Issue Price (as determined below) of a series of Series Preferred by the applicable "Series Preferred Conversion Price," calculated as provided in Section 5(c). The "Original Issue Price" of the Series A-1 Preferred shall be $2.93 per share, the "Original Issue Price" of the Series B-1 Preferred shall be $2.93 per share, the "Original Issue Price" of the Series C-1 Preferred shall be $4.60 per share, the "Original Issue Price" of the Series D-1 Preferred shall be $4.00 per share and the "Original Issue Price" of the Series E Preferred shall be $2.93 per share (each as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof).

(c) Series Preferred Conversion Price. The conversion price for the Series A-1 Preferred shall initially be $2.93 per share (the "Series A-1 Conversion Price"). The conversion price for the Series B-1 Preferred shall initially be $2.93 per share (the "Series B-1 Conversion Price"). The conversion price for the Series C-1 Preferred shall initially be $4.60 per share (the "Series C-1 Conversion Price"). The conversion price for the Series D-1 Preferred shall initially be $2.93 per share (the "Series D-1 Conversion Price"). The conversion price for the Series E Preferred shall initially be $2.93 per share (the "Series E Conversion Price," together with the Series A-1 Conversion Price, the Series B-1 Conversion Price, the Series C-1 Conversion Price and the Series D-1 Conversion Price, the "Series Preferred Conversion Price")). Such initial Series Preferred Conversion Price shall be adjusted from time to time in accordance with this Section 5. All references to the Series Preferred Conversion Price herein shall mean the applicable Series Preferred Conversion Price as so adjusted.

(d) Mechanics of Conversion. Each holder of Series Preferred who desires to convert the same into shares of Common Stock pursuant to this Section 5 shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Company or any transfer agent for the Series Preferred, and shall give written notice to the Company at such office that such holder elects to convert the same. Such notice shall state the number of shares of Series Preferred being converted. Thereupon, the Company shall promptly issue and deliver at such office to such holder a certificate or certificates for the number of shares of Common Stock to which such holder is entitled and shall promptly pay (i) in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock (at the Common Stock's fair market value determined by the Board as of the date of such conversion), any declared and unpaid dividends on the shares of Series Preferred being converted and (ii) in cash (at the Common Stock's fair market value determined by the Board as of the date of conversion) the value of any fractional share of Common Stock otherwise issuable to such holder. Such conversion shall be deemed to have been made at the close of business on the date of such surrender of the certificates representing the shares of Series Preferred to be converted, and the person entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock on such date.

(**e) Adjustment for Stock Splits and Combinations.** If at any time or from time to time after the date hereof (the "Original Issue Date") the Company effects a subdivision of the outstanding Common Stock without a corresponding subdivision of the Preferred Stock, each Series Preferred Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if at any time or from time to time after the Original Issue Date the Company combines the outstanding shares of Common Stock into a smaller number of shares without a corresponding combination of the Preferred Stock, each Series Preferred Conversion Price in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 5(e) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Common Stock Dividends and Distributions. If at any time or from time to time after the Original Issue Date the Company pays a dividend or other distribution in additional shares of Common Stock, each Series Preferred Conversion Price that is then in effect shall be decreased as of the time of such issuance, as provided below:

(i) The Series Preferred Conversion Price shall be adjusted by multiplying the applicable Series Preferred Conversion Price then in effect by a fraction equal to:

(A) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance, and

(B) the denominator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

(ii) if the Company fixes a record date to determine which holders of Common Stock are entitled to receive such dividend or other distribution, the Series Preferred Conversion Price shall be fixed as of the close of business on such record date and the number of shares of Common Stock shall be calculated immediately prior to the close of business on such record date; and

(iii) if such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series Preferred Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series Preferred Conversion Price shall be adjusted pursuant to this Section 5(f) to reflect the actual payment of such dividend or distribution.

(g) Adjustment for Reclassification, Exchange and Substitution. If at any time or from time to time after the Original Issue Date, the Common Stock issuable upon the conversion of the Series Preferred is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification or otherwise (other than an Acquisition or Asset Transfer as defined in Section 4 or a subdivision or combination of shares or stock dividend or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this Section 5), in any such event each holder of Series Preferred shall then have the right to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification or other change by holders of the maximum number of shares of Common Stock into which such shares of Series Preferred could have been converted immediately prior to such recapitalization, reclassification or change, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof.

(h) Reorganizations, Mergers or Consolidations. If at any time or from time to time after the Original Issue Date, there is a capital reorganization of the Common Stock or the merger or consolidation of the Company with or into another corporation or another entity or person (other than an Acquisition or Asset Transfer as defined in Section 4 or a recapitalization, subdivision, combination, reclassification, exchange or substitution of shares provided for elsewhere in this Section 5), as a part of such capital reorganization, provision shall be made so that the holders of the Series Preferred shall thereafter be entitled to receive upon conversion of the Series Preferred the number of shares of stock or other securities or property of the Company to which a holder of the number of shares of Common Stock deliverable upon conversion would have been entitled on such capital reorganization, subject to adjustment in

respect of such stock or securities by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 5 with respect to the rights of the holders of Series Preferred after the capital reorganization to the end that the provisions of this Section 5 (including adjustment of the applicable Series Preferred Conversion Price then in effect and the number of shares issuable upon conversion of the Series Preferred) shall be applicable after that event and be as nearly equivalent as practicable.

(i) Sale of Shares Below Series Preferred Conversion Price.

(i) If at any time or from time to time after the Original Issue Date, the Company issues or sells, or is deemed by the express provisions of this Section 5(i) to have issued or sold, Additional Shares of Common Stock (as defined below), other than as provided in Section 5(f), 5(g) or 5(h), for an Effective Price (as defined below) less than the then effective Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable (a "Qualifying Dilutive Issuance"), then and in each such case, the then existing Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable, shall be reduced, as of the close of business on the date of such issue or sale to the lowest price per share paid in such Qualifying Dilutive Issuance.

(ii) No adjustment shall be made to the Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable, in an amount less than one tenth of one cent per share. Any adjustment otherwise required by this Section 5(i) that is not required to be made due to the preceding sentence shall be included in any subsequent adjustment to the Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable.

(iii) For the purpose of making any adjustment required under this Section 5(i), the aggregate consideration received by the Company for any issue or sale of securities (the "Aggregate Consideration") shall be defined as: (A) to the extent it consists of cash, be computed at the net amount of cash received by the Company after deduction of any underwriting or similar commissions, compensation or concessions paid or allowed by the Company in connection with such issue or sale but without deduction of any expenses payable by the Company, (B) to the extent it consists of property other than cash, be computed at the fair value of that property as determined in good faith by the Board, and (C) if Additional Shares of Common Stock, Convertible Securities (as defined below) or rights or options to purchase either Additional Shares of Common Stock or Convertible Securities are issued or sold together with other stock or securities or other assets of the Company for a consideration that covers both, be computed as the portion of the consideration so received that may be reasonably determined in good faith by the Board to be allocable to such Additional Shares of Common Stock, Convertible Securities or rights or options.

(iv) For the purpose of the adjustment required under this Section 5(i), if the Company issues or sells (x) Preferred Stock or other stock, options, warrants, purchase rights or other securities convertible into, Additional Shares of Common Stock (such convertible stock or securities being herein referred to as "Convertible Securities") or (y) rights

or options for the purchase of Additional Shares of Common Stock or Convertible Securities and if the Effective Price of such Additional Shares of Common Stock is less than the applicable Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, in each case the Company shall be deemed to have issued at the time of the issuance of such rights or options or Convertible Securities the maximum number of Additional Shares of Common Stock issuable upon exercise or conversion thereof and to have received as consideration for the issuance of such shares an amount equal to the total amount of the consideration, if any, received by the Company for the issuance of such rights or options or Convertible Securities plus:

(A) in the case of such rights or options, the minimum amounts of consideration, if any, payable to the Company upon the exercise of such rights or options; and

(B) in the case of Convertible Securities, the minimum amounts of consideration, if any, payable to the Company upon the conversion thereof (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities); *provided* that if the minimum amounts of such consideration cannot be ascertained, but are a function of antidilution or similar protective clauses, the Company shall be deemed to have received the minimum amounts of consideration without reference to such clauses.

(C) If the minimum amount of consideration payable to the Company upon the exercise or conversion of rights, options or Convertible Securities is reduced over time or on the occurrence or non-occurrence of specified events other than by reason of antidilution adjustments, the Effective Price shall be recalculated using the figure to which such minimum amount of consideration is reduced; *provided further*, that if the minimum amount of consideration payable to the Company upon the exercise or conversion of such rights, options or Convertible Securities is subsequently increased, the Effective Price shall be again recalculated using the increased minimum amount of consideration payable to the Company upon the exercise or conversion of such rights, options or Convertible Securities.

(D) No further adjustment of the applicable Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as adjusted upon the issuance of such rights, options or Convertible Securities, shall be made as a result of the actual issuance of Additional Shares of Common Stock or the exercise of any such rights or options or the conversion of any such Convertible Securities. If any such rights or options or the conversion privilege represented by any such Convertible Securities shall expire without having been exercised, the Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable, as adjusted upon the issuance of such rights, options or Convertible Securities shall be readjusted to the Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable, which would have been in effect had an adjustment been made on the basis that the only Additional Shares of Common Stock so issued were the Additional Shares of Common Stock, if any, actually issued or sold on the exercise of such rights or options or rights of conversion of such Convertible Securities, and such Additional Shares of Common Stock, if any, were issued or sold for the consideration actually received by the

Company upon such exercise, plus the consideration, if any, actually received by the Company for the granting of all such rights or options, whether or not exercised, plus the consideration received for issuing or selling the Convertible Securities actually converted, plus the consideration, if any, actually received by the Company (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities) on the conversion of such Convertible Securities, *provided* that such readjustment shall not apply to prior conversions of Series Preferred.

(v) For the purpose of making any adjustment to the Conversion Price of the Series A-1 Preferred, Series B-1 Preferred, Series D-1 Preferred and Series E Preferred required under this Section 5(i), "Additional Shares of Common Stock" shall mean all shares of Common Stock issued by the Company or deemed to be issued pursuant to this Section 5(i) (including shares of Common Stock subsequently reacquired or retired by the Company), other than:

(A) Common Stock and/or options, warrants or other Common Stock purchase rights and the Common Stock issued pursuant to such options, warrants or other rights after the Original Issue Date to employees, officers or directors of, or consultants or advisors to, the Company or any subsidiary pursuant to stock purchase or stock option plans or other arrangements that are approved by the Board;

(B) shares of Common Stock issued pursuant to the exercise of Convertible Securities outstanding as of the Original Issue Date;

(C) shares of Common Stock and Convertible Securities and the Common Stock issued pursuant to such Convertible Securities pursuant to a merger, consolidation, strategic alliance, acquisition or similar business combination, in each case, as approved by the Board, *provided* such issuances are for other than primarily equity financing purposes;

(D) shares of Common Stock and Convertible Securities issued in connection with the settlement of disputed amounts approved by the Board;

(E) shares of Common Stock issued upon conversion of the Series Preferred;

(F) shares of Common Stock and Convertible Securities issued pursuant to any equipment loan or leasing arrangement, real property leasing arrangement or debt financing from a bank or similar financial institution, the primary purpose of which is other than to obtain financing for the Company through the issuance of equity securities, in each case, as approved by the Board;

(G) shares of Common Stock issued by the Company pursuant to a registration statement filed under the Securities Act of 1933, as amended;

(H) shares of Common Stock and Convertible Securities issued in connection with strategic transactions involving the Company and other entities, including (i) joint ventures, manufacturing, marketing or distribution arrangements or (ii) technology transfer or development arrangements, in any event entered into primarily for non-capital raising purposes; *provided* that the issuance of shares therein has been approved by the Board;

(I) shares of Common Stock and Convertible Securities issued in connection with any Next Equity Financing, as defined in Section 7 below; and

(J) the shares of Series E Preferred issuable upon conversion of the secured convertible promissory notes convertible into Series E-1 Preferred, issued pursuant to the Loan Facility Agreement dated October 1, 2009, and the Common Stock issuable upon conversion of such shares of Series E Preferred.

References to Common Stock in the subsections of this clause (v) shall mean all shares of Common Stock issued by the Company or deemed to be issued pursuant to this Section 5(i). The "Effective Price" of Additional Shares of Common Stock shall mean the quotient determined by dividing the total number of Additional Shares of Common Stock issued or sold, or deemed to have been issued or sold by the Company under this Section 5(i), into the Aggregate Consideration received, or deemed to have been received by the Company for such issue under this Section 5(i), for such Additional Shares of Common Stock.

(vi) In the event that the Company issues or sells, or is deemed to have issued or sold, Additional Shares of Common Stock in a Qualifying Dilutive Issuance (the "First Dilutive Issuance"), then in the event that the Company issues or sells, or is deemed to have issued or sold, Additional Shares of Common Stock in a Qualifying Dilutive Issuance other than the First Dilutive Issuance (a "Subsequent Dilutive Issuance") pursuant to the same instruments as the First Dilutive Issuance, then and in each such case upon a Subsequent Dilutive Issuance the Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable, shall be reduced to the Series A-1 Conversion Price, Series B-1 Conversion Price, Series D-1 Conversion Price or Series E Conversion Price, as applicable, that would have been in effect had the First Dilutive Issuance and each Subsequent Dilutive Issuance all occurred on the closing date of the First Dilutive Issuance.

(j) Certificate of Adjustment. In each case of an adjustment or readjustment of the Series Preferred Conversion Price for the number of shares of Common Stock or other securities issuable upon conversion of the Series Preferred, if the Series Preferred is then convertible pursuant to this Section 5, the Company, at its expense, shall compute such adjustment or readjustment in accordance with the provisions hereof and prepare a certificate showing such adjustment or readjustment, and shall mail such certificate, by first class mail, postage prepaid, to each registered holder of Series Preferred at the holder's address as shown in the Company's books. The certificate shall set forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based, including a statement of (i) the consideration received or deemed to be received by the Company for any Additional Shares of Common Stock issued or sold or deemed to have been issued or sold, (ii) the Series Preferred Conversion Price at the time in effect, (iii) the number of Additional Shares of Common Stock and (iv) the type and amount, if any, of other property which at the time would be received upon conversion of the Series Preferred.

(k) Notices of Record Date. Upon (i) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or (ii) any Acquisition (as defined in Section 4) or other capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company, any merger or consolidation of the Company with or into any other corporation, or any Asset Transfer (as defined in Section 4), or any voluntary or involuntary dissolution, liquidation or winding up of the Company, the Company shall mail to each holder of Series Preferred at least ten (10) days prior to the record date specified therein (or such shorter period approved by the holders of (i) at least sixty-six and two-thirds percent (66-2/3%) of the outstanding Series B-1 Preferred, voting as a separate class, and (ii) at least fifty-one percent (51%) of the outstanding Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-if-converted basis), a notice specifying (A) the date upon which any such record is to be taken for the purpose of such dividend or distribution and a description of such dividend or distribution, (B) the date upon which any such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up is expected to become effective, and (C) the date, if any, that is to be fixed as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for securities or other property deliverable upon such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up.

(l) Automatic Conversion.

(i) Each share of Series Preferred shall automatically be converted into shares of Common Stock, based on the then-effective Series Preferred Conversion Price, (A) at any time upon the affirmative election of (1) the holders of at least sixty-six and two-thirds percent (66-2/3%) of the outstanding shares of Series B-1 Preferred, voting as a separate class, and (2) the holders of at least fifty-one percent (51%) of the outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-if-converted basis, or (B) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Company in which (i) the per share price is at least $8.00 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the filing date hereof), and (ii) the gross cash proceeds to the Company (before deducting underwriting discounts, commissions and fees) are at least $30,000,000. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 5(d).

(ii) Upon the occurrence of either of the events specified in Section 5(l)(i), subject, in the case of Section 5(l)(i)(B), to the closing thereof, the outstanding shares of Series Preferred shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are

surrendered to the Company or its transfer agent; *provided, however*, that the Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such conversion unless the certificates evidencing such shares of Series Preferred are either delivered to the Company or its transfer agent as provided below, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates. Upon the occurrence of such automatic conversion of the Series Preferred, the holders of Series Preferred shall surrender the certificates representing such shares at the office of the Company or any transfer agent for the Series Preferred. Thereupon, there shall be issued and delivered to such holder promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Series Preferred surrendered were convertible on the date upon which such automatic conversion occurred, and any declared and unpaid dividends shall be paid in accordance with the provisions of Section 5(d).

(m) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Series Preferred. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series Preferred by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of any fractional share, the Company shall, in lieu of issuing any fractional share, pay cash equal to the product of such fraction multiplied by the Common Stock's fair market value (as determined by the Board) on the date of conversion.

(n) Reservation of Stock Issuable Upon Conversion. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series Preferred, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series Preferred. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series Preferred, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(o) Notices. Any notice required by the provisions of this Section 5 shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) business day after deposit with a nationally recognized overnight courier, specifying next day delivery, with verification of receipt. All notices shall be addressed to each holder of record at the address of such holder appearing on the books of the Company.

(p) Payment of Taxes. The Company will pay all taxes (other than taxes based upon income) and other governmental charges that may be imposed with respect to the issue or delivery of shares of Common Stock upon conversion of shares of Series Preferred, excluding any tax or other charge imposed in connection with any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which the shares of Series Preferred so converted were registered.

6. REDEMPTION.

(a) The Company shall be obligated to redeem the Series B-1 Preferred, Series D-1 Preferred and Series E Preferred as follows:

(i) The holders of at least (A) sixty-six and two-thirds percent (66 2/3%) of the then outstanding shares of Series B-1 Preferred, voting as a separate class; and (B) fifty-one percent (51%) of the then outstanding shares of Series D-1 Preferred and Series E Preferred, voting together as a single class on an as-if-converted basis, may, by written notice to the Company, require the Company, to the extent it may lawfully do so, to redeem the Series B-1 Preferred, Series D-1 Preferred and Series E Preferred in three (3) annual installments beginning on the sixtieth (60th) day following the eighth anniversary of the Original Issue Date, and ending on the date two (2) years from such first redemption date (each a "Redemption Date"). The Company shall effect such redemptions on the applicable Redemption Date (i) with respect to the Series B-1 Preferred, by paying in cash in exchange for the shares of Series B-1 Preferred to be redeemed a sum equal to the Original Issue Price per share of Series B-1 Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like after filing date hereof), (ii) with respect to the Series D-1 Preferred, by paying in cash in exchange for the shares of Series D-1 Preferred to be redeemed a sum equal to the Original Issue Price per share of Series D-1 Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like after filing date hereof) and (iii) with respect to the Series E Preferred, by paying in cash in exchange for the shares of Series E Preferred to be redeemed a sum equal to the Original Issue Price per share of Series E Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like after filing date hereof). The total amount to be paid for the Series B-1 Preferred, Series D-1 Preferred and Series E Preferred is hereinafter referred to as the "Redemption Price." The number of shares of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred that the Company shall be required to redeem on any one Redemption Date shall be equal to the amount determined by dividing (A) the aggregate number of shares of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred outstanding immediately prior to the Redemption Date by (B) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies). Shares subject to redemption pursuant to this Section 6(a) shall be redeemed from each holder of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred on a pro rata basis, based on the number of shares then held.

(ii) At least thirty (30) days but no more than sixty (60) days prior to the first Redemption Date, the Company shall send a notice (a "Redemption Notice") to all holders of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred to be redeemed setting forth (A) the Redemption Price for the shares to be redeemed; and (B) the place at which such holders may obtain payment of the Redemption Price upon surrender of their share certificates. If the Company does not have sufficient funds legally available to redeem all shares to be redeemed at each Redemption Date, then it shall so notify such holders and shall redeem such shares pro rata (based on the portion of the aggregate Redemption Price payable to them) to the extent possible and shall redeem the remaining shares to be redeemed as soon as sufficient funds are legally available.

(b) On or prior to each Redemption Date, the Company shall deposit the Redemption Price of all shares to be redeemed on such Redemption Date with a bank or trust company having aggregate capital and surplus in excess of $100,000,000, as a trust fund, with irrevocable instructions and authority to the bank or trust company to pay, on and after such Redemption Date, the Redemption Price of the shares to their respective holders upon the surrender of their share certificates. Any moneys deposited by the Company pursuant to this Section 6(b) for the redemption of shares thereafter converted into shares of Common Stock pursuant to Section 5 no later than the fifth (5th) day preceding the applicable Redemption Date shall be returned to the Company forthwith upon such conversion. The balance of any funds deposited by the Company pursuant to this Section 6(b) remaining unclaimed at the expiration of two (2) years following such Redemption Date shall be returned to the Company promptly upon its written request.

(c) On or after each such Redemption Date, each holder of shares of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred to be redeemed shall surrender such holder's certificates representing such shares to the Company in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be canceled. In the event less than all the shares represented by such certificates are redeemed, a new certificate shall be issued representing the unredeemed shares. From and after such Redemption Date, unless there shall have been a default in payment of the Redemption Price or the Company is unable to pay the Redemption Price due to not having sufficient legally available funds, all rights of the holder of such shares as holder of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred (except the right to receive the Redemption Price without interest upon surrender of their certificates), shall cease and terminate with respect to such shares; provided that in the event that shares of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred are not redeemed due to a default in payment by the Company or because the Company does not have sufficient legally available funds, such shares of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred shall remain outstanding and shall be entitled to all of the rights and preferences provided herein until redeemed.

(d) In the event of a call for redemption of any shares of Series B-1 Preferred, Series D-1 Preferred and Series E Preferred, the Conversion Rights (as defined in Section 5) for such Series B-1 Preferred, Series D-1 Preferred and Series E Preferred shall terminate as to the shares designated for redemption at the close of business on the fifth (5th) day preceding the applicable Redemption Date, unless default is made in payment of the Redemption Price.

7. SPECIAL CONVERSION RATE

(a) Definitions. For purposes of this Section 7:

(i) "***Applicable Holder***" means a holder of Series Preferred as of immediately prior to the Special Conversion Adjustment Time.

(ii) "*Conversion Date*" means the date of the initial closing of any Next Equity Financing.

(iii) "*Next Equity Financing*" means the next sale and issuance of the Company's capital stock with aggregate proceeds to the Company of not less than $1,000,000.

(iv) "*Non-Participating Holder*" means an Applicable Holder that does not purchases (either on its own or by its designated affiliates, without duplication), prior to the Special Conversion Adjustment Time, any equity securities sold by the Company in any Next Equity Financing.

(v) "*Participation Multiple*" means a percentage between one percent (1%) and a maximum of three hundred percent (300%), equal to the aggregate number of shares of the Company's equity securities purchased in any Next Equity Financing by a Participation Holder in relation to such Participating Holder's Pro Rata Share.

(vi) "*Participating Holder*" means an Applicable Holder that purchases (either on its own or by its designated affiliates, without duplication), prior to the Special Conversion Adjustment Time, any equity securities sold by the Company in any Next Equity Financing.

(vii) "*Pro Rata Share*" means that number of shares of the Company's equity securities offered by the Company to such Applicable Holder in any Next Equity Financing, which shall be determined by multiplying (i) the number of shares of equity securities allocated for sale in such Next Equity Financing to all Applicable Holders by (ii) the quotient of (a) the number of outstanding shares of Preferred Stock of the Company held by a particular Applicable Holder as of immediately prior to the Special Conversion Adjustment Time, divided by (b) the number of outstanding shares of Preferred Stock of the Company held by all Applicable Holders as of immediately prior to the Special Conversion Adjustment Time.

(viii) "*Special Conversion Adjustment*" means an automatic adjustment of the Series Preferred Conversion Rate for each shares of Series Preferred held by a Participating Holder pursuant to this Section 7 at the Special Conversion Adjustment Time.

(ix) "*Special Conversion Adjustment Time*" means 5:00 p.m., Pacific Time, on the Conversion Date.

(b) Mechanics of Special Conversion Adjustment.

(i) At the Special Conversion Adjustment Time, in the event a Participating Holder's Participation Multiple is between 1% and 99%, then:

(A) All shares of Series Preferred held by such Participating Holder equal to the product (i) one (1) minus the Participating Holder's Participation Multiple multiplied by (ii) the aggregate number of shares of Series Preferred held by such Participating Holder shall automatically convert into such number of shares of the Company's Common Stock at the applicable Series Preferred Conversion Rate for such shares of Series Preferred as set forth in Section 5(b) hereof; and

(B) The balance of all shares of Series Preferred held by such Participating Holder shall automatically convert into shares of the Company's Common Stock at a ratio equal to four (4) shares of Common Stock for each share of Series Preferred held by such Participating Holder.

(ii) At the Special Conversion Adjustment Time, in the event a Participating Holder's Participation Multiple is between 100% and 300%, then all shares of Series Preferred held by such Participating Holder shall automatically convert into such number of shares of the Company's Common Stock equal to the product (A) the Applicable Holder's Participating Multiple multiplied by the aggregate number of shares of Series Preferred held by such Applicable Holder immediately prior to the Special Conversion Adjustment Time multiplied by (B) four (4).

(iii) At the Special Conversion Adjustment Time, all shares of Series Preferred held by any Non-Participating Holder shall automatically convert into such number of shares of the Company's Common Stock as set forth in Section 5(b) hereof.

(c) In the event a Participating Holder's shares of Series Preferred are converted into shares of the Company's Common Stock in accordance with Section 7(b)(i)(A) hereof, the shares of each series of Series Preferred held by such holder shall be automatically converted in such a manner as to maximize the total number of shares of Common Stock issuable to such holder by upon taking into consideration the currently effective Series Preferred Conversion Rate for each outstanding series of Preferred Stock.

(d) The Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such Special Conversion Adjustment unless and until the certificates evidencing the shares of Series Preferred that have been converted pursuant to such Special Conversion Adjustment are either delivered to the Company or its transfer agent as provided below, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates.

(e) Each Applicable Holder shall promptly deliver to the Company during regular business hours at the office of the Company or its transfer agent, or at such other place as may be designated by the Company, the certificate or certificates for the shares of Series Preferred so converted, duly endorsed or assigned in blank to the Company or the holder shall notify the Company or its transfer agent that such certificate or certificates have been lost, stolen or destroyed and execute an agreement satisfactory to the Company to indemnify the Company from any loss incurred in connection with such certificate or certificates. As promptly as practicable thereafter, the Company shall:

(i) issue and deliver to such Applicable Holder a certificate or certificates for the number of full shares of Common Stock to be issued upon such Special Conversion Adjustment and such holder shall be deemed to have become a holder of record of such shares of Common Stock as of the Special Conversion Adjustment Time;

(ii) pay to such Applicable Holder in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock, any declared and unpaid dividends on the shares of Series Preferred being converted pursuant to the Special Conversion Adjustment.

8. NO REISSUANCE OF SERIES PREFERRED.

No shares of Series Preferred acquired by the Company by reason of redemption, purchase, conversion or otherwise shall be reissued.

V.

A. The liability of the directors of the Company for monetary damages shall be eliminated to the fullest extent under applicable law.

B. The Company is authorized to provide indemnification of agents (as defined in Section 317 of the CGCL) for breach of duty to the Company and its stockholders through Bylaw provisions or through agreements with the agents, or through stockholder resolutions, or otherwise, in excess of the indemnification otherwise permitted by Section 317 of the CGCL, subject to the limits on such indemnification set forth in Section 145 of the DGCL and, at any time or times that the Company is subject to Section 2115(b) of the CGCL, to the limits on such excess indemnification set forth in Section 204 of the CGCL.

C. Any repeal or modification of this Article V shall only be prospective and shall not affect the rights under this Article V in effect at the time of the alleged occurrence of any action or omission to act giving rise to liability.

VI.

For the management of the business and for the conduct of the affairs of the Company, and in further definition, limitation and regulation of the powers of the Company, of its directors and of its stockholders or any class thereof, as the case may be, it is further *provided* that:

A. The management of the business and the conduct of the affairs of the Company shall be vested in its Board. The number of directors that shall constitute the whole Board shall be fixed by the Board in the manner provided in the Bylaws, subject to any restrictions that may be set forth in this Certificate of Incorporation.

B. The Board is expressly empowered to adopt, amend or repeal the Bylaws of the Company. The stockholders shall also have the power to adopt, amend or repeal the Bylaws of the Company; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the Company required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the Bylaws of the Company.

C. The directors of the Company need not be elected by written ballot unless the Bylaws so provide.

* * * *

FOUR: This Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Company.

FIVE: This Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of the company in accordance with Section 228 of the DGCL. This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL by the stockholders of the company.

IN WITNESS WHEREOF, the undersigned has executed this certificate on July 30, 2013.

/s/ Harold Van Wart
Harold Van Wart
President and Chief Executive Officer

Exhibit 3.2

AMENDED AND RESTATED

BYLAWS

OF

METABOLEX, INC.
(A DELAWARE CORPORATION)

AMENDED AND RESTATED

BYLAWS

OF

METABOLEX
(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Wilmington, County of New Castle.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("DGCL").

Section 5. Annual Meeting.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held

on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5.

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the DGCL, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this Section 5(b)), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section 5. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934 Act") and Rule 14a-4(d) thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at

the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(c) Notwithstanding anything in the second sentence of Section 5(b) of these Bylaws to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 5 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 5 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 5. Except as otherwise provided by law, the Chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section 5, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption) or (iv) by the holders of shares entitled to cast not less than ten percent (10%) of the votes at the meeting, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix.

At any time or times that the corporation is subject to Section 2115(b) of the California General Corporation Law ("CGCL"), stockholders holding five percent (5%) or more of the outstanding shares shall have the right to call a special meeting of stockholders as set forth in Section 18(b) herein.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the Chairman of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of a majority of shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

(a) Unless otherwise provided in the Certificate of Incorporation, and notwithstanding anything set forth in Section 5 of these Bylaws to the contrary, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action which may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, or by electronic transmission setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(b) Every written consent or electronic transmission shall bear the date of signature of each stockholder who signs the consent, and no written consent or electronic transmission shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner herein required, written consents or electronic transmissions signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the DGCL. If the action which is consented to is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

(d) A telegram, cablegram or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the state of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the board of directors of the corporation. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary,

appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office.

Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of preferred stock, the authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time.

Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient.

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Term of Directors.

(a) Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, directors shall be elected at each annual meeting of stockholders for a term of one year. Each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(b) No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the corporation is subject to Section 2115(b) of the CGCL. During such time or times that the corporation is subject to Section 2115(b) of the CGCL, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares

are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder thinks fit. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of preferred stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

(b) At any time or times that the corporation is subject to §2115(b) of the CGCL, if, after the filling of any vacancy, the directors then in office who have been elected by stockholders shall constitute less than a majority of the directors then in office, then

(i) any holder or holders of an aggregate of five percent (5%) or more of the total number of shares at the time outstanding having the right to vote for those directors may call a special meeting of stockholders; or

(ii) the Superior Court of the proper county shall, upon application of such stockholder or stockholders, summarily order a special meeting of the stockholders, to be held to elect the entire board, all in accordance with Section 305(c) of the CGCL, the term of office of any director shall terminate upon that election of a successor.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of preferred stock, when one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall

become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified.

Section 20. Removal.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of preferred stock and any limitations imposed by applicable law, and assuming the corporation is not subject to Section 2115 of the CGCL), the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors or (ii) without cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation, entitled to vote generally at an election of directors.

(b) During such time or times that the corporation is subject to Section 2115(b) of the CGCL, the Board of Directors or any individual director may be removed from office at any time without cause by the affirmative vote of the holders of at least a majority of the outstanding shares entitled to vote on such removal; provided, however, that unless the entire Board is removed, no individual director may be removed when the votes cast against such director's removal, or not consenting in writing to such removal, would be sufficient to elect that director if voted cumulatively at an election which the same total number of votes were cast (or, if such action is taken by written consent, all shares entitled to vote were voted) and the entire number of directors authorized at the time of such director's most recent election were then being elected.

Section 21. Meetings.

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, including a voice-messaging system or other system designated to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for a regular meeting of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the President or any two of the directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, postage prepaid at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the directors then in office; provided, however, that a quorum shall not be less than one-third (1/3) of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided*, *further*, at any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so

approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of preferred stock and the provisions of subsections (a) or (b) of this Bylaw may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon

notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or if the President is absent, the most senior Vice President, (if a director) or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chairman of the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) Duties of Chairman of the Board of Directors. The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the

Board of Directors shall designate from time to time. If there is no President, then the Chairman of the Board of Directors shall also serve as the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in paragraph (c) of this Section 28.

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. Unless some other officer has been elected Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. The President may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission notice to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Unless otherwise provided in the Certificate of Incorporation, any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING
OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation.

All checks and drafts drawn on banks or other depositaries on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 34. Form and Execution of Certificates. Certificates for the shares of stock of the corporation shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue. Each certificate shall state upon the face or back thereof, in full or in summary, all of the powers, designations, preferences, and rights, and the limitations or restrictions of the shares authorized to be issued or shall, except as otherwise required by law, set forth on the face or back a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional, or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this section or otherwise required by law or with respect to this section a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided*, *however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any stockholder of record seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors shall promptly, but in all events within ten (10) days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within ten (10) days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such

action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.

(a) Directors and Executive Officers The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, "executive officers" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however,* that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers and; and, *provided, further,* that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the Delaware General Corporation Law or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Other Officers, Employees and Other Agents. The corporation shall have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director **or** executive officer of the corporation, or is or was serving at the request of the corporation as a director, executive officer or officer of another corporation, partnership, joint

venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding, provided, however, that, if the DGCL requires, an advancement of expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section 43 or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Bylaw, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of a quorum consisting of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Bylaw to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set

forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or executive officer is not entitled to be indemnified, or to such advancement of expenses, under this Article XI or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL or any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, executive officer, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Bylaw.

(h) Amendments. Any repeal or modification of this Bylaw shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law. If this Section 43 shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term “proceeding” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term "expenses" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the "corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Bylaw with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a "director," "executive officer," "officer," "employee," or "agent" of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this Bylaw.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) Notice to Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), or as provided for in Section 21 of these Bylaws. If such notice is not delivered personally, it shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice to Person with Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

ARTICLE XIII

AMENDMENTS

Section 45. Amendments. Unless otherwise provided in the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the corporation. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the Bylaws of the corporation.

ARTICLE XIV

RIGHT OF FIRST REFUSAL

Section 46. Right of First Refusal. No stockholder shall sell, assign, pledge, or in any manner transfer any of the shares of common stock of the corporation or any right or interest therein, whether voluntarily or by operation of law, or by gift or otherwise, except by a transfer which meets the requirements hereinafter set forth in this bylaw:

(a) If the stockholder desires to sell or otherwise transfer any of his shares of common stock, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer.

(b) For thirty (30) days following receipt of such notice, the corporation shall have the option to purchase all of the shares specified in the notice at the price and upon the terms set forth in such notice; *provided, however*, that, with the consent of the stockholder, the corporation shall have the option to purchase a lesser portion of the shares specified in said notice at the price and upon the terms set forth therein. In the event of a gift, property settlement or other transfer in which the proposed transferee is not paying the full price for the shares, and that is not otherwise exempted from the provisions of this Section 46, the price shall be deemed to be the fair market value of the stock at such time as determined in good faith by the Board of Directors. In the event the corporation elects to purchase all of the shares or, with consent of the stockholder, a lesser portion of the shares, it shall give written notice to the transferring stockholder of its election and settlement for said shares shall be made as provided below in paragraph (d).

(c) The corporation may assign its rights hereunder.

(d) In the event the corporation and/or its assignee(s) elect to acquire any of the shares of the transferring stockholder as specified in said transferring stockholder's notice, the Secretary of the corporation shall so notify the transferring stockholder and settlement thereof shall be made in cash within thirty (30) days after the Secretary of the corporation receives said transferring stockholder's notice; provided that if the terms of payment set forth in said transferring stockholder's notice were other than cash against delivery, the corporation and/or its assignee(s) shall pay for said shares on the same terms and conditions set forth in said transferring stockholder's notice.

(e) In the event the corporation and/or its assignees(s) do not elect to acquire all of the shares specified in the transferring stockholder's notice, said transferring stockholder may, within the sixty-day period following the expiration of the option rights granted to the corporation and/or its assignees(s) herein, transfer the shares specified in said transferring stockholder's notice which were not acquired by the corporation and/or its assignees(s) as specified in said transferring stockholder's notice. All shares so sold by said transferring stockholder shall continue to be subject to the provisions of this bylaw in the same manner as before said transfer.

(f) Anything to the contrary contained herein notwithstanding, the following transactions shall be exempt from the provisions of this bylaw:

(1) A stockholder's transfer of any or all shares held either during such stockholder's lifetime or on death by will or intestacy to such stockholder's immediate family or to any custodian or trustee for the account of such stockholder or such stockholder's immediate family or to any limited partnership of which the stockholder, members of such stockholder's immediate family or any trust for the account of such stockholder or such stockholder's immediate family will be the general of limited partner(s) of such partnership. "Immediate family" as used herein shall mean spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such transfer.

(2) A stockholder's bona fide pledge or mortgage of any shares with a commercial lending institution, provided that any subsequent transfer of said shares by said institution shall be conducted in the manner set forth in this bylaw.

(3) A stockholder's transfer of any or all of such stockholder's shares to the corporation or to any other stockholder of the corporation.

(4) A stockholder's transfer of any or all of such stockholder's shares to a person who, at the time of such transfer, is an officer or director of the corporation.

(5) A corporate stockholder's transfer of any or all of its shares pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder.

(6) A corporate stockholder's transfer of any or all of its shares to any or all of its stockholders.

(7) A transfer by a stockholder which is a limited or general partnership to any or all of its partners or former partners.

In any such case, the transferee, assignee, or other recipient shall receive and hold such stock subject to the provisions of this bylaw, and there shall be no further transfer of such stock except in accord with this bylaw.

(g) The provisions of this bylaw shall not apply to shares of common stock issued upon conversion of any preferred stock.

(h) The provisions of this bylaw may be waived with respect to any transfer either by the corporation, upon duly authorized action of its Board of Directors, or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation (excluding the votes represented by those shares to be transferred by the transferring stockholder). This bylaw may be amended or repealed either by a duly authorized action of the Board of Directors or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation.

(i) Any sale or transfer, or purported sale or transfer, of securities of the corporation shall be null and void unless the terms, conditions, and provisions of this bylaw are strictly observed and followed.

(j) The foregoing right of first refusal shall terminate upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Securities Act of 1933, as amended.

(k) The certificates representing shares of stock of the corporation shall bear on their face the following legend so long as the foregoing right of first refusal remains in effect:

> "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION."

ARTICLE XV

LOANS TO OFFICERS

Section 47. Loans to Officers. Except as otherwise prohibited under applicable law, and unless otherwise provided in the Certificate of Incorporation, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

ARTICLE XVI

MISCELLANEOUS

Section 48. Annual Report.

(a) Subject to the provisions of paragraph (b) of this Bylaw, the Board of Directors shall cause an annual report to be sent to each stockholder of the corporation not later than one hundred twenty (120) days after the close of the corporation's fiscal year. Such report shall include a balance sheet as of the end of such fiscal year and an income statement and statement of changes in financial position for such fiscal year, accompanied by any report thereon of independent accounts or, if there is no such report, the certificate of an authorized officer of the corporation that such statements were prepared without audit from the books and records of the corporation. When there are more than 100 stockholders of record of the corporation's shares, as determined by Section 605 of the CGCL, additional information as

required by Section 1501(b) of the CGCL shall also be contained in such report, provided that if the corporation has a class of securities registered under Section 12 of the 1934 Act, the 1934 Act shall take precedence. Such report shall be sent to stockholders at least fifteen (15) days prior to the next annual meeting of stockholders after the end of the fiscal year to which it relates.

(b) If and so long as there are fewer than 100 holders of record of the corporation's shares, the requirement of sending of an annual report to the stockholders of the corporation is hereby expressly waived.

Exhibit 10.1

METABOLEX, INC.

2003 EQUITY INCENTIVE PLAN

ADOPTED: JULY 31, 2003
APPROVED BY THE STOCKHOLDERS: AUGUST 24, 2003
AMENDED BY THE BOARD OF DIRECTORS: NOVEMBER 18, 2004
APPROVED BY THE STOCKHOLDERS: NOVEMBER 18, 2004
AMENDED BY THE BOARD OF DIRECTORS: SEPTEMBER 7, 2006
APPROVED BY THE STOCKHOLDERS: SEPTEMBER 19, 2006
AMENDED BY THE BOARD OF DIRECTORS: JUNE 7, 2007
APPROVED BY THE STOCKHOLDERS: AUGUST 10, 2007
TERMINATION DATE: JULY 31, 2013

1. PURPOSES.

(a) Eligible Stock Award Recipients. The persons eligible to receive Stock Awards are Employees, Directors and Consultants.

(b) Available Stock Awards. The purpose of the Plan is to provide a means by which eligible recipients of Stock Awards may be given an opportunity to benefit from increases in value of the Common Stock through the granting of the following Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) stock bonuses and (iv) rights to acquire restricted stock.

(c) General Purpose. The Company, by means of the Plan, seeks to retain the services of the group of persons eligible to receive Stock Awards, to secure and retain the services of new members of this group and to provide incentives for such persons to exert maximum efforts for the success of the Company and its Affiliates.

2. DEFINITIONS.

(a) ***"1993 Plan"*** means the Metabolex 1993 Stock Option Plan.

(b) ***"Affiliate"*** means any parent corporation or subsidiary corporation of the Company, whether now or hereafter existing, as those terms are defined in Sections 424(e) and (f), respectively, of the Code.

(c) ***"Board"*** means the Board of Directors of the Company.

(d) ***"Capitalization Adjustment"*** has the meaning ascribed to that term in Section 11(a).

(e) ***"Change in Control"*** means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company by any institutional investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions that are primarily a private financing transaction for the Company or (B) solely because the level of Ownership held by any Exchange Act Person (the "Subject Person") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company if, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur; or

(iv) there is consummated a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportion as their Ownership of the Company immediately prior to such sale, lease, license or other disposition.

The term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company.

Notwithstanding the foregoing or any other provision of this Plan, the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Stock Awards subject to such agreement (it being understood, however, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply).

(f) ***"Code"*** means the Internal Revenue Code of 1986, as amended.

(g) ***"Committee"*** means a committee of one or more members of the Board appointed by the Board in accordance with Section 3(c).

(h) ***"Common Stock"*** means the common stock of the Company.

(i) ***"Company"*** means Metabolex, Inc., a Delaware corporation.

(j) ***"Consultant"*** means any person, including an advisor, (i) engaged by the Company or an Affiliate to render consulting or advisory services and who is compensated for such services or (ii) serving as a member of the Board of Directors of an Affiliate and who is compensated for such services. However, the term "Consultant" shall not include Directors who are not compensated by the Company for their services as Directors, and the payment of a director's fee by the Company for services as a Director shall not cause a Director to be considered a "Consultant" for purposes of the Plan.

(k) ***"Continuous Service"*** means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, shall not terminate a Participant's Continuous Service. For example, a change in status from an employee of the Company to a consultant to an Affiliate or to a Director shall not constitute an interruption of Continuous Service. The Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of any leave of absence approved by that party, including sick leave, military leave or any other personal leave. Notwithstanding the foregoing, a leave of absence shall be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy or in the written terms of the Participant's leave of absence.

(l) ***"Corporate Transaction"*** means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board in its discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(m) ***"Director"*** means a member of the Board.

(n) ***"Disability"*** means the inability of a person, in the opinion of a qualified physician acceptable to the Company, to perform the major duties of that person's position with the Company or an Affiliate because of the sickness or injury of the person.

(o) ***"Employee"*** means any person employed by the Company or an Affiliate. Service as a Director or payment of a director's fee by the Company for such service or for service as a member of the Board of Directors of an Affiliate shall not be sufficient to constitute "employment" by the Company or an Affiliate.

(p) ***"Entity"*** means a corporation, partnership or other entity.

(q) ***"Exchange Act"*** means the Securities Exchange Act of 1934, as amended.

(r) ***"Exchange Act Person"*** means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" shall not include (A) the Company or any Subsidiary of the Company, (B) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (C) an underwriter temporarily holding securities pursuant to an offering of such securities, or (D) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company.

(s) ***"Fair Market Value"*** means, as of any date, the value of the Common Stock determined in good faith by the Board, and in a manner consistent with Section 260.140.50 of Title 10 of the California Code of Regulations.

(t) ***"Incentive Stock Option"*** means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(u) ***"Nonstatutory Stock Option"*** means an Option not intended to qualify as an Incentive Stock Option.

(v) ***"Officer"*** means any person designated by the Company as an officer.

(w) ***"Option"*** means an Incentive Stock Option or a Nonstatutory Stock Option granted pursuant to the Plan.

(x) ***"Option Agreement"*** means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an individual Option grant. Each Option Agreement shall be subject to the terms and conditions of the Plan.

(y) ***"Optionholder"*** means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(z) ***"Own," "Owned," "Owner," "Ownership"*** A person or Entity shall be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(aa) ***"Participant"*** means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(bb) ***"Plan"*** means this Metabolex 2003 Equity Incentive Plan.

(cc) ***"Securities Act"*** means the Securities Act of 1933, as amended.

(dd) ***"Stock Award"*** means any right granted under the Plan, including an Option, a stock bonus and a right to acquire restricted stock.

(ee) ***"Stock Award Agreement"*** means a written agreement between the Company and a holder of a Stock Award evidencing the terms and conditions of an individual Stock Award grant. Each Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(ff) ***"Subsidiary"*** means, with respect to the Company, (i) any corporation of which more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than fifty percent (50%).

(gg) ***"Ten Percent Stockholder"*** means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or of any of its Affiliates.

3. ADMINISTRATION.

(a) Administration by Board. The Board shall administer the Plan unless and until the Board delegates administration to a Committee, as provided in Section 3(c).

(b) Powers of Board. The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time which of the persons eligible under the Plan shall be granted Stock Awards; when and how each Stock Award shall be granted; what type or combination of types of Stock Award shall be granted; the provisions of each Stock Award granted (which need not be identical), including the time or times when a person shall be permitted to receive Common Stock pursuant to a Stock Award; and the number of shares of Common Stock with respect to which a Stock Award shall be granted to each such person.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it shall deem necessary or expedient to make the Plan fully effective.

(iii) To amend the Plan or a Stock Award as provided in Section 12.

(iv) To terminate or suspend the Plan as provided in Section 13.

(v) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan.

(c) Delegation to Committee. The Board may delegate administration of the Plan to a Committee or Committees of one (1) or more members of the Board, and the term "Committee" shall apply to any person or persons to whom such authority has been delegated. If administration is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board, including the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may abolish the Committee at any time and revest in the Board the administration of the Plan.

(d) Delegation to an Officer. The Board may delegate to one or more Officers of the Company the authority to do one or both of the following: (i) designate Officers and Employees of the Company or any of its Subsidiaries to be recipients of Stock Awards and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Officers and Employees of the Company; *provided, however,* that the Board resolutions regarding such delegation shall specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Notwithstanding the foregoing, the Board may not delegate authority to an Officer to determine the Fair Market Value of the Common Stock

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

4. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve. Subject to the provisions of Section 11(a) relating to Capitalization Adjustments, the Common Stock that may be issued pursuant to Stock Awards shall not exceed in the aggregate eleven million four hundred sixty-five thousand nine hundred eighty-four (11,465,984) post-reverse split shares of Common Stock less the aggregate number of shares of Common Stock issued and outstanding and issuable pursuant to outstanding stock options under the 1993 Plan.

(b) If any Stock Award shall for any reason expire or otherwise terminate, in whole or in part, without having been exercised in full, or if any shares of Common Stock issued to a Participant pursuant to a Stock Award are forfeited back to or repurchased by the Company because of or in connection with the failure to meet a contingency or condition required to vest such shares in the Participant, the shares of Common Stock not acquired, such Stock Award or the shares of Common Stock forfeited or repurchased under such Stock Award shall revert to and again become available for issuance under the Plan; *provided, however,* that subject to the provisions of Section 11(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued as Incentive Stock Options shall be six million (6,000,000) post-reverse split shares of Common Stock.

(c) Source of Shares. The shares of Common Stock subject to the Plan may be unissued shares or reacquired shares, bought on the market or otherwise.

(d) Share Reserve Limitation. To the extent required by Section 260.140.45 of Title 10 of the California Code of Regulations, the total number of shares of Common Stock issuable upon exercise of all outstanding Options and the total number of shares of Common Stock provided for under any stock bonus or similar plan of the Company shall not exceed the applicable percentage as calculated in accordance with the conditions and exclusions of Section 260.140.45 of Title 10 of the California Code of Regulations, based on the shares of Common Stock of the Company that are outstanding at the time the calculation is made.

5. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to Employees. Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants.

(b) Ten Percent Stockholders.

(i) A Ten Percent Stockholder shall not be granted an Incentive Stock Option unless the exercise price of such Option is at least one hundred ten percent (110%) of the Fair Market Value of the Common Stock on the date of grant and the Option is not exercisable after the expiration of five (5) years from the date of grant.

(ii) A Ten Percent Stockholder shall not be granted a Nonstatutory Stock Option unless the exercise price of such Option is at least (i) one hundred ten percent (110%) of the Fair Market Value of the Common Stock on the date of grant or (ii) such lower percentage of the Fair Market Value of the Common Stock on the date of grant as is permitted by Section 260.140.41 of Title 10 of the California Code of Regulations at the time of the grant of the Option.

(iii) A Ten Percent Stockholder shall not be granted a restricted stock award unless the purchase price of the restricted stock is at least (i) one hundred percent (100%) of the Fair Market Value of the Common Stock on the date of grant or (ii) such lower percentage of the Fair Market Value of the Common Stock on the date of grant as is permitted by Section 260.140.42 of Title 10 of the California Code of Regulations at the time of the grant of the restricted stock award.

(c) Consultants. A Consultant shall not be eligible for the grant of a Stock Award if, at the time of grant, either the offer or the sale of the Company's securities to such Consultant is not exempt under Rule 701 of the Securities Act ("Rule 701") because of the nature of the services that the Consultant is providing to the Company, because the Consultant is not a natural person, or because of some other provision of Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions.

6. OPTION PROVISIONS.

Each Option shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. All Options shall be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates shall be issued for shares of Common Stock purchased on exercise of each type of Option. The provisions of separate Options need not be identical, but each Option shall include (through incorporation of provisions hereof by reference in the Option or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 5(b) regarding Ten Percent Stockholders, no Option shall be exercisable after the expiration of ten (10) years from the date it was granted.

(b) Exercise Price of an Incentive Stock Option. Subject to the provisions of Section 5(b) regarding Ten Percent Stockholders, the exercise price of each Incentive Stock Option shall be not less than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option on the date the Option is granted. Notwithstanding the foregoing, an Incentive Stock Option may be granted with an exercise price lower than that set forth in the preceding sentence if such Option is granted pursuant to an assumption or substitution for another option in a manner satisfying the provisions of Section 424(a) of the Code.

(c) Exercise Price of a Nonstatutory Stock Option. Subject to the provisions of Section 5(b) regarding Ten Percent Stockholders, the exercise price of each Nonstatutory Stock Option shall be not less than eighty-five percent (85%) of the Fair Market Value of the Common Stock subject to the Option on the date the Option is granted. Notwithstanding the foregoing, a Nonstatutory Stock Option may be granted with an exercise price lower than that set forth in the preceding sentence if such Option is granted pursuant to an assumption or substitution for another option in a manner satisfying the provisions of Section 424(a) of the Code.

(d) Consideration. The purchase price of Common Stock acquired pursuant to an Option shall be paid, to the extent permitted by applicable statutes and regulations, either (i) in cash at the time the Option is exercised or (ii) at the discretion of the Board at the time of the grant of the Option (or subsequently in the case of a Nonstatutory Stock Option) (1) by delivery to the Company of other Common Stock, (2) according to a deferred payment or other similar arrangement with the Optionholder or (3) in any other form of legal consideration that may be acceptable to the Board. Unless otherwise specifically provided in the Option, the purchase price of Common Stock acquired pursuant to an Option that is paid by delivery to the Company of other Common Stock acquired, directly or indirectly from the Company, shall be paid only by shares of the Common Stock of the Company that have been held for more than six (6) months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes). At any time that the Company is incorporated in Delaware, payment of the Common Stock's "par value," as defined in the Delaware General Corporation Law, shall not be made by deferred payment.

In the case of any deferred payment arrangement, interest shall be compounded at least annually and shall be charged at the minimum rate of interest necessary to avoid (1) the treatment as interest, under any applicable provisions of the Code, of any amounts other than amounts stated to be interest under the deferred payment arrangement and (2) the treatment of the Option as a variable award for financial accounting purposes.

(e) Transferability of an Incentive Stock Option. An Incentive Stock Option shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Optionholder only by the Optionholder. Notwithstanding the foregoing, the Optionholder may, by delivering written notice to the Company, in a form satisfactory to the Company, designate a third party who, in the event of the death of the Optionholder, shall thereafter be entitled to exercise the Option.

(f) Transferability of a Nonstatutory Stock Option. A Nonstatutory Stock Option shall not be transferable except by will or by the laws of descent and distribution and, to the extent provided in the Option Agreement, to such further extent as permitted by Section 260.140.41(d) of Title 10 of the California Code of Regulations at the time of the grant of the Option, and shall be exercisable during the lifetime of the Optionholder only by the Optionholder. If the Nonstatutory Stock Option does not provide for transferability, then the Nonstatutory Stock Option shall not be transferable except by will or by the laws of descent and

distribution and shall be exercisable during the lifetime of the Optionholder only by the Optionholder. Notwithstanding the foregoing, the Optionholder may, by delivering written notice to the Company, in a form satisfactory to the Company, designate a third party who, in the event of the death of the Optionholder, shall thereafter be entitled to exercise the Option.

(g) Vesting Generally. The total number of shares of Common Stock subject to an Option may, but need not, vest and therefore become exercisable in periodic installments that may, but need not, be equal. The Option may be subject to such other terms and conditions on the time or times when it may be exercised (which may be based on performance or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options may vary. The provisions of this Section 6(g) are subject to any Option provisions governing the minimum number of shares of Common Stock as to which an Option may be exercised.

(h) Minimum Vesting. Notwithstanding the foregoing Section 6(g), to the extent that the following restrictions on vesting are required by Section 260.140.41(f) of Title 10 of the California Code of Regulations at the time of the grant of the Option, then:

(i) Options granted to an Employee who is not an Officer, Director or Consultant shall provide for vesting of the total number of shares of Common Stock at a rate of at least twenty percent (20%) per year over five (5) years from the date the Option was granted, subject to reasonable conditions such as continued employment; and

(ii) Options granted to Officers, Directors or Consultants may be made fully exercisable, subject to reasonable conditions such as continued employment, at any time or during any period established by the Company.

(i) Termination of Continuous Service. In the event that an Optionholder's Continuous Service terminates (other than upon the Optionholder's death or Disability), the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of termination) but only within such period of time ending on the earlier of (i) the date three (3) months following the termination of the Optionholder's Continuous Service (or such longer or shorter period specified in the Option Agreement, which period shall not be less than thirty (30) days unless such termination is for cause), or (ii) the expiration of the term of the Option as set forth in the Option Agreement. If, after termination, the Optionholder does not exercise his or her Option within the time specified in the Option Agreement, the Option shall terminate.

(j) Extension of Termination Date. An Optionholder's Option Agreement may also provide that if the exercise of the Option following the termination of the Optionholder's Continuous Service (other than upon the Optionholder's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option shall terminate on the earlier of (i) the expiration of the term of the Option set forth in Section 6(a) or (ii) the expiration of a period of three (3) months after the termination of the Optionholder's Continuous Service during which the exercise of the Option would not be in violation of such registration requirements.

(k) Disability of Optionholder. In the event that an Optionholder's Continuous Service terminates as a result of the Optionholder's Disability, the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of termination), but only within such period of time ending on the earlier of (i) the date twelve (12) months following such termination (or such longer or shorter period specified in the Option Agreement, which period shall not be less than six (6) months) or (ii) the expiration of the term of the Option as set forth in the Option Agreement. If, after termination, the Optionholder does not exercise his or her Option within the time specified herein, the Option shall terminate.

(l) Death of Optionholder. In the event that (i) an Optionholder's Continuous Service terminates as a result of the Optionholder's death or (ii) the Optionholder dies within the period (if any) specified in the Option Agreement after the termination of the Optionholder's Continuous Service for a reason other than death, then the Option may be exercised (to the extent the Optionholder was entitled to exercise such Option as of the date of death) by the Optionholder's estate, by a person who acquired the right to exercise the Option by bequest or inheritance or by a person designated to exercise the option upon the Optionholder's death pursuant to Section 6(e) or 6(f), but only within the period ending on the earlier of (1) the date eighteen (18) months following the date of death (or such longer or shorter period specified in the Option Agreement, which period shall not be less than six (6) months) or (2) the expiration of the term of such Option as set forth in the Option Agreement. If, after death, the Option is not exercised within the time specified herein, the Option shall terminate.

(m) Early Exercise. The Option may, but need not, include a provision whereby the Optionholder may elect at any time before the Optionholder's Continuous Service terminates to exercise the Option as to any part or all of the shares of Common Stock subject to the Option prior to the full vesting of the Option. Subject to the "Repurchase Limitation" in Section 10(h), any unvested shares of Common Stock so purchased may be subject to a repurchase option in favor of the Company or to any other restriction the Board determines to be appropriate. Provided that the "Repurchase Limitation" in Section 10(h) is not violated, the Company will not exercise its repurchase option until at least six (6) months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes) have elapsed following exercise of the Option unless the Board otherwise specifically provides in the Option.

(n) Right of Repurchase. Subject to the "Repurchase Limitation" in Section 10(h), the Option may, but need not, include a provision whereby the Company may elect to repurchase all or any part of the vested shares of Common Stock acquired by the Optionholder pursuant to the exercise of the Option. Provided that the "Repurchase Limitation" in Section 10(h) is not violated, the Company will not exercise its repurchase option until at least six (6) months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes) have elapsed following exercise of the Option unless otherwise specifically provided in the Option.

(o) Right of First Refusal. The Option may, but need not, include a provision whereby the Company may elect to exercise a right of first refusal following receipt of notice

from the Optionholder of the intent to transfer all or any part of the shares of Common Stock received upon the exercise of the Option. Except as expressly provided in this Section 6(o) or in the Stock Award Agreement for the Option, such right of first refusal shall otherwise comply with any applicable provisions of the Bylaws of the Company. The Company will not exercise its right of first refusal until at least six (6) months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes) have elapsed following the exercise of the Option unless otherwise specifically provided in the Option.

7. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS.

(a) Stock Bonus Awards. Each stock bonus agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The terms and conditions of stock bonus agreements may change from time to time, and the terms and conditions of separate stock bonus agreements need not be identical, but each stock bonus agreement shall include (through incorporation of provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A stock bonus may be awarded in consideration for past services actually rendered to the Company or an Affiliate for its benefit.

(ii) Vesting. Subject to the "Repurchase Limitation" in Section 10(h), shares of Common Stock awarded under the stock bonus agreement may, but need not, be subject to a share repurchase option in favor of the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. Subject to the "Repurchase Limitation" in Section 10(h), in the event that a Participant's Continuous Service terminates, the Company may reacquire any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination under the terms of the stock bonus agreement. Provided that the "Repurchase Limitation" in Section 10(h) is not violated, the Company will not exercise its repurchase option until at least six (6) months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes) have elapsed following receipt of the stock bonus unless otherwise specifically provided in the stock bonus agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the stock bonus agreement shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Participant only by the Participant.

(b) Restricted Stock Awards. Each restricted stock purchase agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The terms and conditions of the restricted stock purchase agreements may change from time to time, and the terms and conditions of separate restricted stock purchase agreements need not be identical, but each restricted stock purchase agreement shall include (through incorporation of provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Purchase Price. Subject to the provisions of Section 5(b) regarding Ten Percent Stockholders, the purchase price of restricted stock awards shall not be less than eighty-five percent (85%) of the Common Stock's Fair Market Value on the date such award is made or at the time the purchase is consummated.

(ii) Consideration. The purchase price of Common Stock acquired pursuant to the restricted stock purchase agreement shall be paid either: (i) in cash at the time of purchase; (ii) at the discretion of the Board, according to a deferred payment or other similar arrangement with the Participant; or (iii) in any other form of legal consideration that may be acceptable to the Board in its discretion; *provided*, *however*, that at any time that the Company is incorporated in Delaware, then payment of the Common Stock's "par value," as defined in the Delaware General Corporation Law, shall not be made by deferred payment.

(iii) Vesting. Subject to the "Repurchase Limitation" in Section 10(h), shares of Common Stock acquired under the restricted stock purchase agreement may, but need not, be subject to a share repurchase option in favor of the Company in accordance with a vesting schedule to be determined by the Board.

(iv) Termination of Participant's Continuous Service. Subject to the "Repurchase Limitation" in Section 10(h), in the event that a Participant's Continuous Service terminates, the Company may repurchase or otherwise reacquire any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination under the terms of the restricted stock purchase agreement. Provided that the "Repurchase Limitation" in Section 10(h) is not violated, the Company will not exercise its repurchase option until at least six (6) months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes) have elapsed following the purchase of the restricted stock unless otherwise specifically provided in the restricted stock purchase agreement.

(v) Transferability. Rights to acquire shares of Common Stock under the restricted stock purchase agreement shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Participant only by the Participant.

8. COVENANTS OF THE COMPANY.

(a) Availability of Shares. During the terms of the Stock Awards, the Company shall keep available at all times the number of shares of Common Stock required to satisfy such Stock Awards.

(b) Securities Law Compliance. The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking shall not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority which counsel for the

Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained.

9. USE OF PROCEEDS FROM STOCK.

Proceeds from the sale of Common Stock pursuant to Stock Awards shall constitute general funds of the Company.

10. MISCELLANEOUS.

(a) Acceleration of Exercisability and Vesting. The Board shall have the power to accelerate the time at which a Stock Award may first be exercised or the time during which a Stock Award or any part thereof will vest in accordance with the Plan, notwithstanding the provisions in the Stock Award stating the time at which it may first be exercised or the time during which it will vest.

(b) Stockholder Rights. No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Stock Award unless and until such Participant has satisfied all requirements for exercise of the Stock Award pursuant to its terms.

(c) No Employment or other Service Rights. Nothing in the Plan or any instrument executed or Stock Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or shall affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(d) Incentive Stock Option $100,000 Limitation. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and its Affiliates) exceeds one hundred thousand dollars ($100,000), the Options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of a Stock Award Agreement.

(e) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and

risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative if (1) the issuance of the shares of Common Stock upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act or (2) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(f) Withholding Obligations. To the extent provided by the terms of a Stock Award Agreement, the Participant may satisfy any federal, state or local tax withholding obligation relating to the exercise or acquisition of Common Stock under a Stock Award by any of the following means (in addition to the Company's right to withhold from any compensation paid to the Participant by the Company) or by a combination of such means: (i) tendering a cash payment; (ii) authorizing the Company to withhold shares of Common Stock from the shares of Common Stock otherwise issuable to the Participant as a result of the exercise or acquisition of Common Stock under the Stock Award; *provided, however,* that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid variable award accounting); or (iii) delivering to the Company owned and unencumbered shares of Common Stock.

(g) Information Obligation. To the extent required by Section 260.140.46 of Title 10 of the California Code of Regulations, the Company shall deliver financial statements to Participants at least annually. This Section 10(g) shall not apply to key Employees whose duties in connection with the Company assure them access to equivalent information.

(h) Repurchase Limitation. The terms of any repurchase option shall be specified in the Stock Award, and the repurchase price may be either the Fair Market Value of the shares of Common Stock on the date of termination of Continuous Service or the lower of (i) the Fair Market Value of the shares of Common Stock on the date of repurchase or (ii) their original purchase price. To the extent required by Section 260.140.41 and Section 260.140.42 of Title 10 of the California Code of Regulations at the time a Stock Award is made, any repurchase option contained in a Stock Award granted to a person who is not an Officer, Director or Consultant shall be upon the terms described below:

(i) Fair Market Value. If the repurchase option gives the Company the right to repurchase the shares of Common Stock upon termination of Continuous Service at not less than the Fair Market Value of the shares of Common Stock to be purchased on the date of termination of Continuous Service, then (i) the right to repurchase shall be exercised for cash or cancellation of purchase money indebtedness for the shares of Common Stock within ninety (90)

days of termination of Continuous Service (or in the case of shares of Common Stock issued upon exercise of Stock Awards after such date of termination, within ninety (90) days after the date of the exercise) or such longer period as may be agreed to by the Company and the Participant (for example, for purposes of satisfying the requirements of Section 1202(c)(3) of the Code regarding "qualified small business stock") and (ii) the right terminates when the shares of Common Stock become publicly traded.

(ii) Original Purchase Price. If the repurchase option gives the Company the right to repurchase the shares of Common Stock upon termination of Continuous Service at the lower of (i) the Fair Market Value of the shares of Common Stock on the date of repurchase or (ii) their original purchase price, then (x) the right to repurchase at the original purchase price shall lapse at the rate of at least twenty percent (20%) of the shares of Common Stock per year over five (5) years from the date the Stock Award is granted (without respect to the date the Stock Award was exercised or became exercisable) and (y) the right to repurchase shall be exercised for cash or cancellation of purchase money indebtedness for the shares of Common Stock within ninety (90) days of termination of Continuous Service (or in the case of shares of Common Stock issued upon exercise of Options after such date of termination, within ninety (90) days after the date of the exercise) or such longer period as may be agreed to by the Company and the Participant (for example, for purposes of satisfying the requirements of Section 1202(c)(3) of the Code regarding "qualified small business stock").

11. ADJUSTMENTS UPON CHANGES IN STOCK.

(a) Capitalization Adjustments. If any change is made in, or other event occurs with respect to, the Common Stock subject to the Plan or subject to any Stock Award without the receipt of consideration by the Company (through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other transaction not involving the receipt of consideration by the Company (each a "Capitalization Adjustment"), the Plan will be appropriately adjusted in the class(es) and maximum number of securities subject to the Plan pursuant to Sections 4(a) and 4(b), and the outstanding Stock Awards will be appropriately adjusted in the class(es) and number of securities and price per share of Common Stock subject to such outstanding Stock Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive. (The conversion of any convertible securities of the Company shall not be treated as a transaction "without receipt of consideration" by the Company.)

(b) Dissolution or Liquidation. In the event of a dissolution or liquidation of the Company, then all outstanding Options shall terminate immediately prior to the completion of such dissolution or liquidation, and shares of Common Stock subject to the Company's repurchase option may be repurchased by the Company notwithstanding the fact that the holder of such stock is still in Continuous Service.

(c) Corporate Transaction. In the event of a Corporate Transaction, any surviving corporation or acquiring corporation may assume or continue any or all Stock Awards outstanding under the Plan or may substitute similar stock awards for Stock Awards outstanding

under the Plan (it being understood that similar stock awards include, but are not limited to, awards to acquire the same consideration paid to the stockholders or the Company, as the case may be, pursuant to the Corporate Transaction), and any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to Stock Awards may be assigned by the Company to the successor of the Company (or such successor's parent company), if any, in connection with such Corporate Transaction. In the event that any surviving corporation or acquiring corporation does not assume or continue any or all such outstanding Stock Awards or substitute similar stock awards for such outstanding Stock Awards, then with respect to Stock Awards that have not been assumed, continued or substituted and that are held by Participants whose Continuous Service has not terminated prior to the effective time of the Corporate Transaction, the vesting of such Stock Awards (and, if applicable, the time at which such Stock Awards may be exercised) shall (contingent upon the effectiveness of the Corporate Transaction) be accelerated in full to a date prior to the effective time of such Corporate Transaction as the Board shall determine (or, if the Board shall not determine such a date, to the date that is five (5) days prior to the effective time of the Corporate Transaction), the Stock Awards shall terminate if not exercised (if applicable) at or prior to such effective time, and any reacquisition or repurchase rights held by the Company with respect to such Stock Awards held by Participants whose Continuous Service has not terminated shall (contingent upon the effectiveness of the Corporate Transaction) lapse. With respect to any other Stock Awards outstanding under the Plan that have not been assumed, continued or substituted, the vesting of such Stock Awards (and, if applicable, the time at which such Stock Award may be exercised) shall not be accelerated, unless otherwise provided in a written agreement between the Company or any Affiliate and the holder of such Stock Award, and such Stock Awards shall terminate if not exercised (if applicable) prior to the effective time of the Corporate Transaction.

(d) Change in Control. A Stock Award held by any Participant whose Continuous Service has not terminated prior to the effective time of a Change in Control may be subject to additional acceleration of vesting and exercisability upon or after such event as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration shall occur.

12. AMENDMENT OF THE PLAN AND STOCK AWARDS.

(a) Amendment of Plan. The Board at any time, and from time to time, may amend the Plan. However, except as provided in Section 11(a) relating to Capitalization Adjustments, no amendment shall be effective unless approved by the stockholders of the Company to the extent stockholder approval is necessary to satisfy the requirements of Section 422 of the Code.

(b) Stockholder Approval. The Board, in its sole discretion, may submit any other amendment to the Plan for stockholder approval.

(c) Contemplated Amendments. It is expressly contemplated that the Board may amend the Plan in any respect the Board deems necessary or advisable to provide eligible Employees with the maximum benefits provided or to be provided under the provisions of the Code and the regulations promulgated thereunder relating to Incentive Stock Options and/or to bring the Plan and/or Incentive Stock Options granted under it into compliance therewith.

(d) No Impairment of Rights. Rights under any Stock Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (i) the Company requests the consent of the Participant and (ii) the Participant consents in writing.

(e) Amendment of Stock Awards. The Board at any time, and from time to time, may amend the terms of any one or more Stock Awards; *provided, however,* that the rights under any Stock Award shall not be impaired by any such amendment unless (i) the Company requests the consent of the Participant and (ii) the Participant consents in writing.

13. TERMINATION OR SUSPENSION OF THE PLAN.

(a) Plan Term. The Board may suspend or terminate the Plan at any time. Unless sooner terminated, the Plan shall terminate on the day before the tenth (10th) anniversary of the date the Plan is adopted by the Board or approved by the stockholders of the Company, whichever is earlier. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) No Impairment of Rights. Suspension or termination of the Plan shall not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the Participant.

14. EFFECTIVE DATE OF PLAN.

The Plan shall become effective as determined by the Board, but no Stock Award shall be exercised (or, in the case of a stock bonus, shall be granted) unless and until the Plan has been approved by the stockholders of the Company, which approval shall be within twelve (12) months before or after the date the Plan is adopted by the Board.

15. CHOICE OF LAW.

The law of the State of California shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to such state's conflict of laws rules.

Exhibit 10.2

METABOLEX, INC.
2003 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice ("Grant Notice") and this Stock Option Agreement, Metabolex, Inc. (the "Company") has granted you an option under its 2003 Equity Incentive Plan (the "Plan") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. Defined terms not explicitly defined in this Stock Option Agreement but defined in the Plan shall have the same definitions as in the Plan.

The details of your option are as follows:

1. VESTING. Subject to the limitations contained herein, your option will vest as provided in your Grant Notice, provided that vesting will cease upon the termination of your Continuous Service.

2. NUMBER OF SHARES AND EXERCISE PRICE. The number of shares of Common Stock subject to your option and your exercise price per share referenced in your Grant Notice may be adjusted from time to time for Capitalization Adjustments.

3. METHOD OF PAYMENT. Payment of the exercise price is due in full upon exercise of all or any part of your option. You may elect to make payment of the exercise price in cash or by check or in any other manner ***permitted by your Grant Notice,*** which may include one or more of the following:

(a) In the Company's sole discretion at the time your option is exercised and provided that at the time of exercise the Common Stock is publicly traded and quoted regularly in *The Wall Street Journal*, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds.

(b) Provided that at the time of exercise the Common Stock is publicly traded and quoted regularly in *The Wall Street Journal*, by delivery of already-owned shares of Common Stock either that you have held for the period required to avoid a charge to the Company's reported earnings (generally six (6) months) or that you did not acquire, directly or indirectly from the Company, that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, shall include delivery to the Company of your attestation of ownership of such shares of Common Stock in a form approved by the Company. Notwithstanding the foregoing, you may not exercise your option by tender to the Company of Common Stock to the extent such tender would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock.

4. WHOLE SHARES. You may exercise your option only for whole shares of Common Stock.

5. SECURITIES LAW COMPLIANCE. Notwithstanding anything to the contrary contained herein, you may not exercise your option unless the shares of Common Stock issuable upon such exercise are then registered under the Securities Act or, if such shares of Common Stock are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations.

6. TERM. You may not exercise your option before the commencement or after the expiration of its term. The term of your option commences on the Date of Grant and expires upon the earliest of the following:

(a) three (3) months after the termination of your Continuous Service for any reason other than your Disability or death, provided that if during any part of such three (3) month period your option is not exercisable solely because of the condition set forth in Section 6, your option shall not expire until the earlier of the Expiration Date or until it shall have been exercisable for an aggregate period of three (3) months after the termination of your Continuous Service;

(b) twelve (12) months after the termination of your Continuous Service due to your Disability;

(c) eighteen (18) months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates;

(d) the Expiration Date indicated in your Grant Notice; or

(e) the day before the tenth (10th) anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the date of grant of your option and ending on the day three (3) months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or your permanent and total disability, as defined in Section 22(e) of the Code. (The definition of disability in Section 22(e) of the Code is different from the definition of the Disability under the Plan). The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three (3) months after the date your employment with the Company or an Affiliate terminates.

7. EXERCISE.

(a) You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by delivering a Notice of Exercise (in a form designated by the Company) together with the exercise price to the Secretary of the Company, or to such other person as the Company may designate, during regular business hours, together with such additional documents as the Company may then require.

(b) By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (1) the exercise of your option, (2) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (3) the disposition of shares of Common Stock acquired upon such exercise.

(c) If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within fifteen (15) days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two (2) years after the date of your option grant or within one (1) year after such shares of Common Stock are transferred upon exercise of your option.

(d) By exercising your option you agree that you shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock or other securities of the Company held by you, for a period of time specified by the managing underwriter(s) (not to exceed one hundred eighty (180) days) following the effective date of a registration statement of the Company filed under the Securities Act (the "Lock Up Period"); *provided, however*, that nothing contained in this section shall prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. The underwriters of the Company's stock are intended third party beneficiaries of this Section 8(d) and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

8. TRANSFERABILITY. Your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you. Notwithstanding the foregoing, by delivering written notice to the Company, in a form satisfactory to the Company, you may designate a third party who, in the event of your death, shall thereafter be entitled to exercise your option.

9. RIGHT OF FIRST REFUSAL. Shares of Common Stock that you acquire upon exercise of your option are subject to any right of first refusal that may be described in the Company's bylaws in effect at such time the Company elects to exercise its right; *provided, however,* that if your option is an Incentive Stock Option and the right of first refusal described

in the Company's bylaws in effect at the time the Company elects to exercise its right is more beneficial to you than the right of first refusal described in the Company's bylaws on the Date of Grant, then the right of first refusal described in the Company's bylaws on the Date of Grant shall apply. The Company's right of first refusal shall terminate upon the date securities of the Company are first offered to the public pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Securities Act.

10. OPTION NOT A SERVICE CONTRACT. Your option is not an employment or service contract, and nothing in your option shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option shall obligate the Company or an Affiliate, their respective stockholders, Boards of Directors, Officers or Employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

11. WITHHOLDING OBLIGATIONS.

(a) At the time you exercise your option, in whole or in part, or at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a "cashless exercise" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

(b) Upon your request and subject to approval by the Company, in its sole discretion, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid variable award accounting). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence shall not be permitted unless you make a proper and timely election under Section 83(b) of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock shall be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure shall be your sole responsibility.

(c) You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company shall have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein unless such obligations are satisfied.

12. NOTICES. Any notices provided for in your option or the Plan shall be given in writing and shall be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five (5) days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company.

13. GOVERNING PLAN DOCUMENT. Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of your option and those of the Plan, the provisions of the Plan shall control.

Exhibit 10.3

METABOLEX, INC.
2003 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice ("Grant Notice") and this Stock Option Agreement, Metabolex, Inc. (the "Company") has granted you an option under its 2003 Equity Incentive Plan (the "Plan") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. Defined terms not explicitly defined in this Stock Option Agreement but defined in the Plan shall have the same definitions as in the Plan.

The details of your option are as follows:

1. VESTING. Subject to the limitations contained herein, your option will vest as provided in your Grant Notice, provided that vesting will cease upon the termination of your Continuous Service.

2. NUMBER OF SHARES AND EXERCISE PRICE. The number of shares of Common Stock subject to your option and your exercise price per share referenced in your Grant Notice may be adjusted from time to time for Capitalization Adjustments.

3. EXERCISE PRIOR TO VESTING ("EARLY EXERCISE"). If permitted in your Grant Notice (i.e., the "Exercise Schedule" indicates that "Early Exercise" of your option is permitted) and subject to the provisions of your option, you may elect at any time that is both (i) during the period of your Continuous Service and (ii) during the term of your option, to exercise all or part of your option, including the nonvested portion of your option; *provided, however,* that:

(a) a partial exercise of your option shall be deemed to cover first vested shares of Common Stock and then the earliest vesting installment of unvested shares of Common Stock;

(b) any shares of Common Stock so purchased from installments that have not vested as of the date of exercise shall be subject to the purchase option in favor of the Company as described in the Company's form of Early Exercise Stock Purchase Agreement;

(c) you shall enter into the Company's form of Early Exercise Stock Purchase Agreement with a vesting schedule that will result in the same vesting as if no early exercise had occurred; and

(d) if your option is an Incentive Stock Option, then, to the extent that the aggregate Fair Market Value (determined at the time of grant) of the shares of Common Stock with respect to which your option plus all other Incentive Stock Options you hold are exercisable for the first time by you during any calendar year (under all plans of the Company and its Affiliates) exceeds one hundred thousand dollars ($100,000), your option(s) or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options.

4. METHOD OF PAYMENT. Payment of the exercise price is due in full upon exercise of all or any part of your option. You may elect to make payment of the exercise price in cash or by check or in any other manner ***permitted by your Grant Notice,*** which may include one or more of the following:

(a) In the Company's sole discretion at the time your option is exercised and provided that at the time of exercise the Common Stock is publicly traded and quoted regularly in *The Wall Street Journal*, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds.

(b) Provided that at the time of exercise the Common Stock is publicly traded and quoted regularly in *The Wall Street Journal*, by delivery of already-owned shares of Common Stock either that you have held for the period required to avoid a charge to the Company's reported earnings (generally six (6) months) or that you did not acquire, directly or indirectly from the Company, that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, shall include delivery to the Company of your attestation of ownership of such shares of Common Stock in a form approved by the Company. Notwithstanding the foregoing, you may not exercise your option by tender to the Company of Common Stock to the extent such tender would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock.

5. WHOLE SHARES. You may exercise your option only for whole shares of Common Stock.

6. SECURITIES LAW COMPLIANCE. Notwithstanding anything to the contrary contained herein, you may not exercise your option unless the shares of Common Stock issuable upon such exercise are then registered under the Securities Act or, if such shares of Common Stock are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations.

7. TERM. You may not exercise your option before the commencement or after the expiration of its term. The term of your option commences on the Date of Grant and expires upon the earliest of the following:

(a) three (3) months after the termination of your Continuous Service for any reason other than your Disability or death, provided that if during any part of such three (3) month period your option is not exercisable solely because of the condition set forth in Section 6,

your option shall not expire until the earlier of the Expiration Date or until it shall have been exercisable for an aggregate period of three (3) months after the termination of your Continuous Service;

(b) twelve (12) months after the termination of your Continuous Service due to your Disability;

(c) eighteen (18) months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates;

(d) the Expiration Date indicated in your Grant Notice; or

(e) the day before the tenth (10th) anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the date of grant of your option and ending on the day three (3) months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or your permanent and total disability, as defined in Section 22(e) of the Code. (The definition of disability in Section 22(e) of the Code is different from the definition of the Disability under the Plan). The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three (3) months after the date your employment with the Company or an Affiliate terminates.

8. EXERCISE.

(a) You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by delivering a Notice of Exercise (in a form designated by the Company) together with the exercise price to the Secretary of the Company, or to such other person as the Company may designate, during regular business hours, together with such additional documents as the Company may then require.

(b) By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (1) the exercise of your option, (2) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (3) the disposition of shares of Common Stock acquired upon such exercise.

(c) If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within fifteen (15) days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two (2) years after the date of your option grant or within one (1) year after such shares of Common Stock are transferred upon exercise of your option.

(d) By exercising your option you agree that you shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock or other securities of the Company held by you, for a period of time specified by the managing underwriter(s) (not to exceed one hundred eighty (180) days) following the effective date of a registration statement of the Company filed under the Securities Act (the "Lock Up Period"); *provided, however*, that nothing contained in this section shall prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. The underwriters of the Company's stock are intended third party beneficiaries of this Section 8(d) and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

9. TRANSFERABILITY. Your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you. Notwithstanding the foregoing, by delivering written notice to the Company, in a form satisfactory to the Company, you may designate a third party who, in the event of your death, shall thereafter be entitled to exercise your option.

10. RIGHT OF FIRST REFUSAL. Shares of Common Stock that you acquire upon exercise of your option are subject to any right of first refusal that may be described in the Company's bylaws in effect at such time the Company elects to exercise its right; *provided, however,* that if your option is an Incentive Stock Option and the right of first refusal described in the Company's bylaws in effect at the time the Company elects to exercise its right is more beneficial to you than the right of first refusal described in the Company's bylaws on the Date of Grant, then the right of first refusal described in the Company's bylaws on the Date of Grant shall apply. The Company's right of first refusal shall terminate upon the date securities of the Company are first offered to the public pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Securities Act.

11. OPTION NOT A SERVICE CONTRACT. Your option is not an employment or service contract, and nothing in your option shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option shall obligate the Company or an Affiliate, their respective stockholders, Boards of Directors, Officers or Employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

12. WITHHOLDING OBLIGATIONS.

(a) At the time you exercise your option, in whole or in part, or at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by

means of a "cashless exercise" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

(b) Upon your request and subject to approval by the Company, in its sole discretion, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid variable award accounting). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence shall not be permitted unless you make a proper and timely election under Section 83(b) of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock shall be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure shall be your sole responsibility.

(c) You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company shall have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein unless such obligations are satisfied.

13. NOTICES. Any notices provided for in your option or the Plan shall be given in writing and shall be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five (5) days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company.

14. GOVERNING PLAN DOCUMENT. Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of your option and those of the Plan, the provisions of the Plan shall control.

Exhibit 10.4

METABOLEX, INC.

AMENDED AND RESTATED
INVESTOR RIGHTS AGREEMENT

October 1, 2009

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METABOLEX, INC.

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT (the "***Agreement***") is entered into as of October 1, 2009, by and among **METABOLEX, INC.,** a Delaware corporation (the "***Company***") and the investors listed on Exhibit A hereto, referred to hereinafter as the "***Investors***" and each individually as an "***Investor***."

RECITALS

WHEREAS, certain of the Investors are entering into a Loan Facility Agreement (the "***Loan Facility Agreement***") of even date herewith pursuant to which such Investors may in the future be issued Convertible Promissory Notes (the "***Notes***") that will be convertible into shares of the Company's Series E-1 Preferred Stock or Series E-2 Preferred Stock (collectively, the "***Series E Stock***"), pursuant to the Notes (collectively, the "***Financing***");

WHEREAS, the obligations in the Loan Facility Agreement are conditioned upon the execution and delivery of this Agreement;

WHEREAS, certain of the Investors (the "***Prior Investors***") are holders of the Company's Series A-1 Preferred Stock (the "***Series A-1 Stock***"), Series B-1 Preferred Stock (the "***Series B-1 Stock***"), Series C-1 Preferred Stock (the "***Series C-1 Stock***") and/or Series D-1 Preferred Stock (the "***Series D-1 Stock,***" the Series A-1 Stock, Series B-1 Stock, Series C-1 Stock, Series D-1 Stock and Series E Stock shall be referred to herein collectively as the "***Preferred Stock***");

WHEREAS, the Prior Investors and the Company are parties to an Amended and Restated Investor Rights Agreement dated April 12, 2007 (the "***Prior Agreement***");

WHEREAS, the parties to the Prior Agreement desire to amend and restate the Prior Agreement and accept the rights and covenants hereof in lieu of their rights and covenants under the Prior Agreement; and

WHEREAS, in connection with the consummation of the Financing, the Company and the Investors have agreed to the registration rights, information rights, and other rights as set forth below.

NOW, THEREFORE, in consideration of these premises and for other good and valid consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1. GENERAL.

1.1 Definitions. As used in this Agreement the following terms shall have the following respective meanings:

(a) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

(b) "***Form S-3***" means such form under the Securities Act as in effect on the date hereof or any successor or similar registration form under the Securities Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(c) "***Holder***" means any person owning of record Registrable Securities that have not been sold to the public or any assignee of record of such Registrable Securities in accordance with Section 2.10 hereof.

(d) "***Initial Offering***" means the Company's first firm commitment underwritten public offering of its Common Stock registered under the Securities Act, in connection with which the Shares are converted into Common Stock.

(e) "***Major Investor***" means a Holder (who together with its affiliates) who owns at least 682,500 shares of Series A-1 Stock, Series B-1 Stock, Series D-1 Stock and/or Series E Stock, or Common Stock issued upon conversion thereof (as adjusted for stock splits, combinations, dividends and the like).

(f) "***Register***" "***registered***" and "***registration***" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document.

(g) "***Registrable Securities***" means (i) Common Stock of the Company issuable or issued upon conversion of the Shares, (ii) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such above-described securities, (iii) any other Common Stock of the Company issued or issuable upon conversion of other shares of the Company's equity securities purchased or otherwise acquired by any Investor or (iv) any other Common Stock of the Company purchased or otherwise acquired by any Investor. Notwithstanding the foregoing, Registrable Securities shall not include any securities (x) sold by a person to the public either pursuant to a registration statement or Rule 144, (y) sold in a private transaction in which the transferor's rights under Section 2 of this Agreement are not assigned or (z) held by a Holder (together with its affiliates) if, as reflected on the Company's list of stockholders, such Holder (together with its affiliates) holds less than 1% of the Company's outstanding Common Stock (treating all shares of Preferred Stock on an as converted basis), the Company has completed its Initial Offering and all shares of Common Stock of the Company issuable or issued upon conversion of the Shares held by and issuable to such Holder (and its affiliates) may be sold pursuant to Rule 144 during any ninety (90) day period.

(h) "***Registrable Securities then outstanding***" shall be the number of shares of the Company's Common Stock that are Registrable Securities and either (a) are then issued and outstanding or (b) are issuable pursuant to then exercisable or convertible securities.

(i) "***Registration Expenses***" shall mean all expenses incurred by the Company in complying with Sections 2.2, 2.3 and 2.4, including, without limitation, all registration and filing fees, printing expenses, accounting fees, fees and disbursements of counsel for the Company, reasonable fees and disbursements of a single special counsel for the Holders, blue sky fees and expenses and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company, which shall be paid in any event by the Company).

(j) "***SEC***" or "***Commission***" means the Securities and Exchange Commission.

(k) "***Securities Act***" shall mean the Securities Act of 1933, as amended.

(l) "***Selling Expenses***" shall mean all underwriting discounts and selling commissions applicable to the sale.

(m) "***Shares***" shall mean the Company's Series E Stock, Series D-1 Stock, Series C-1 Stock, Series B-1 Stock and Series A-1 Stock held by the Investors listed on Exhibit A hereto and their permitted assigns.

(n) "***Significant Stockholder***" means (i) T. Rowe Price Health Sciences Fund, Inc. or (ii) a Holder (who together with its affiliates) who owns at least 12,500 shares of Series A-1 Stock or Common Stock issued upon conversion thereof (as adjusted for stock splits. combinations, dividends and the like).

(o) "***Special Registration Statement***" shall mean (i) a registration statement relating to any employee benefit plan or (ii) with respect to any corporate reorganization or transaction under Rule 145 of the Securities Act, including any registration statements related to the issuance or resale of securities issued in such a transaction or (iii) a registration related to stock issued upon conversion of debt securities.

SECTION 2. REGISTRATION; RESTRICTIONS ON TRANSFER.

2.1 Restrictions on Transfer. Each Holder agrees not to make any disposition of all or any portion of the Shares or Registrable Securities unless and until:

(i) there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(ii) (A) The transferee has agreed in writing to be bound by the terms of this Agreement, (B) such Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (C) if reasonably requested by the Company, such

Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration of such shares under the Securities Act. It is agreed that the Company will not require opinions of counsel for transactions made pursuant to Rule 144, except in unusual circumstances. After its Initial Offering, the Company will not require the transferee to be bound by the terms of this Agreement.

(b) Notwithstanding the provisions of subsection (a) above, no such restriction shall apply to a transfer by a Holder that is (A) a partnership transferring to its partners or former partners in accordance with partnership interests, (B) a corporation transferring to a wholly-owned subsidiary or a parent corporation that owns all of the capital stock of the Holder, (C) a limited liability company transferring to its members or former members in accordance with their interest in the limited liability company, (D) an institutional investor or accredited corporate investor, to any of its affiliates or any other person for which such institutional investor acts as investment manager or investment advisor, or to any other institutional investor, or (E) an individual transferring to the Holder's family member or trust for the benefit of an individual Holder, or (F) a grantor or beneficiary of an Investor that is a trust; *provided* that in each case the transferee will agree in writing to be subject to the terms of this Agreement to the same extent as if he were an original Holder hereunder.

(c) Each certificate representing Shares or Registrable Securities shall be stamped or otherwise imprinted with legends substantially similar to the following (in addition to any legend required under applicable state securities laws and except that the Regulation S legend shall be applied only to those securities issued pursuant to Regulation S of the Securities Act):

> THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "***ACT***") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IF REQUESTED BY THE COMPANY, UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.
>
> THE SALE, PLEDGE, HYPOTHECATION OR TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE IS SUBJECT TO THE TERMS AND CONDITIONS OF A CERTAIN INVESTOR RIGHTS AGREEMENT BY AND BETWEEN THE STOCKHOLDER AND THE COMPANY, AS THE SAME MAY BE AMENDED AND/OR RESTATED FROM TIME TO TIME. COPIES OF SUCH AGREEMENT MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED PURSUANT TO REGULATION S OF THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED EXCEPT IN ACCORDANCE THEREWITH.

(d) The Company shall be obligated to reissue promptly unlegended certificates at the request of any Holder thereof if the Company has completed its Initial Offering and the Holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company) reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification and legend.

(e) Any legend endorsed on an instrument pursuant to applicable state securities laws and the stop-transfer instructions with respect to such securities shall be removed upon receipt by the Company of an order of the appropriate blue sky authority authorizing such removal.

2.2 Demand Registration.

(a) Subject to the conditions of this Section 2.2, if the Company shall receive a written request from the Holders of at least thirty-five percent (35%) of the Registrable Securities (the "***Initiating Holders***") that the Company file a registration statement on Form S-1 or S-2 or any similar long-form registration under the Securities Act covering the registration of at least twenty percent (20%) of the Registrable Securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of underwriting discounts and commissions, would exceed thirty million dollars ($30,000,000)), then the Company shall, within thirty (30) days of the receipt thereof, give written notice of such request to all Holders, and subject to the limitations of this Section 2.2, effect, as expeditiously as reasonably possible, the registration under the Securities Act of all Registrable Securities that all Holders request to be registered.

(b) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.2 or any request pursuant to Section 2.4 and the Company shall include such information in the written notice referred to in Section 2.2(a) or Section 2.4(a), as applicable. In such event, the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders (which underwriter or underwriters shall be reasonably acceptable to the Company). Notwithstanding the foregoing, with respect to the underwriting agreement or any other documents reasonably required under such agreement, (i) no Holder shall be required to make any representation or warranty with respect to or on behalf of the Company or any other stockholder of the Company and (ii) the liability of any Holder shall be limited as provided in Section 2.9(b) hereof. Notwithstanding any other provision of this Section 2.2 or Section 2.4, if

the underwriter advises the Company that marketing factors require a limitation of the number of securities to be underwritten (including Registrable Securities) then the Company shall so advise all Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares that may be included in the underwriting shall be allocated to the Holders of such Registrable Securities on a *pro rata* basis based on the number of Registrable Securities held by all participating Holders (including the Initiating Holders, *provided*, *however*, that the number of shares of Registrable Securities to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting). Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from the registration.

(c) The Company shall not be required to effect a registration pursuant to this Section 2.2:

(i) prior to one hundred eighty (180) days following the effective date of the registration statement pertaining to the Initial Offering;

(ii) after the Company has effected two (2) registrations pursuant to this Section 2.2, and such registrations have been declared or ordered effective;

(iii) if within thirty (30) days of receipt of a written request from Initiating Holders pursuant to Section 2.2(a), the Company gives notice to the Holders of the Company's intention to file a registration statement for an Initial Offering, during the period starting with the date that is ninety (90) days prior to the Company's estimated date of filing of, and ending on the date one hundred eighty (180) days following, the effective date of the registration statement pertaining to the Initial Offering;

(iv) if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.2, a certificate signed by the President or Chief Executive Officer of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such registration statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than ninety (90) days after receipt of the request of the Initiating Holders; *provided* that such right to delay a request shall be exercised by the Company not more than once in any twelve (12) month period and *provided further* that the Company shall not register any securities for the account of itself or any other stockholder during such ninety (90) day period (other than registration relating solely to a Special Registration Statement);

(v) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.4 below; or

(vi) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

2.3 Piggyback Registrations. The Company shall notify all Holders of Registrable Securities in writing at least twenty (20) days prior to the filing of any registration statement under the Securities Act for purposes of a public offering of securities of the Company (including, but not limited to, registration statements relating to secondary offerings of securities of the Company, but excluding Special Registration Statements) and will afford each such Holder an opportunity to include in such registration statement all or part of such Registrable Securities held by such Holder. Each Holder desiring to include in any such registration statement all or any part of the Registrable Securities held by it shall, within fifteen (15) days after the above-described notice from the Company, so notify the Company in writing. Such notice shall state the intended method of disposition of the Registrable Securities by such Holder. If a Holder decides not to include all of its Registrable Securities in any registration statement thereafter filed by the Company, such Holder shall nevertheless continue to have the right to include any Registrable Securities in any subsequent registration statement or registration statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein.

(a) Underwriting. If the registration statement under which the Company gives notice under this Section 2.3 is for an underwritten offering, the Company shall so advise the Holders of Registrable Securities. In such event, the right of any such Holder to be included in a registration pursuant to this Section 2.3 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding the foregoing, with respect to the underwriting agreement or any other documents reasonably required under such agreement, (i) no Holder shall be required to make any representation or warranty with respect to or on behalf of the Company or any other stockholder of the Company and (ii) the liability of any Holder shall be limited as provided in Section 2.9(b) hereof Notwithstanding any other provision of this Agreement, if the underwriter determines in its sole discretion and in good faith that marketing factors require a limitation of the number of shares to be underwritten, the number of shares that may be included in the underwriting shall be allocated, first, to the Company; second, to the Holders on a *pro rata* basis based on the total number of Registrable Securities held by the Holders; and third, to any stockholder of the Company (other than a Holder) on a *pro rata* basis; *provided, however*, that no such reduction shall reduce the amount of securities of the selling Holders included in the registration below twenty-five percent (25%) of the total amount of securities included in such registration, unless such offering is the Initial Offering and such registration does not include shares of any other selling stockholders, in which event any or all of the Registrable Securities of the Holders may be excluded in accordance with the immediately preceding clause. In no event will shares of any other selling stockholder be included in such registration that would reduce the number of shares which may be included by Holders without the written consent of Holders of not less than a majority of the Registrable Securities proposed to be sold in the offering. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter, delivered at least ten (10) business days prior to the effective date of the registration statement. Any Registrable Securities excluded or withdrawn from such underwriting shall be excluded and withdrawn from the registration. For any Holder which is a partnership or corporation, the partners, retired partners

and stockholders of such Holder, grantors or beneficiaries of any Holder that is a trust, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing person shall be deemed to be a single "Holder," and any *pro rata* reduction with respect to such "Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "Holder," as defined in this sentence.

(b) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.3 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The Registration Expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.5 hereof.

2.4 Form S-3 Registration. In case the Company shall receive from any Holder or Holders of Registrable Securities a written request or requests that the Company effect a registration on Form S-3 (or any successor to Form S-3) or any similar short-form registration statement and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders of Registrable Securities; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within fifteen (15) days after receipt of such written notice from the Company; *provided, however*, that the Company shall not be obligated to effect any such registration, qualification or compliance pursuant to this Section 2.4:

(i) if Form S-3 is not available for such offering by the Holders, or

(ii) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public of less than one million dollars ($1,000,000), or

(iii) if within thirty (30) days of receipt of a written request from any Holder or Holders pursuant to this Section 2.4, the Company gives notice to such Holder or Holders of the Company's intention to make a public offering within ninety (90) days, other than pursuant to a Special Registration Statement, provided that, the right to give such notice shall be exercised by the Company not more than once in any twelve (12) month period;

(iv) if the Company shall furnish to the Holders a certificate signed by the President or Chief Executive Officer of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Form S-3 registration to be effected at such time, in which event the

Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than ninety (90) days after receipt of the request of the Holder or Holders under this Section 2.4; *provided*, that such right to delay a request shall be exercised by the Company not more than once in any twelve (12) month period and *provided further* that the Company shall not register any securities for the account of itself or any other stockholder during such ninety (90) day period (other than a registration relating solely to a Special Registration Statement), or

(v) if the Company has, within the six (6) month period preceding the date of such request, already effected a registration on Form S-3 for the Holders pursuant to this Section 2.4, or

(vi) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

(c) Subject to the foregoing, the Company shall file a Form S-3 registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the requests of the Holders. Registrations effected pursuant to this Section 2.4 shall not be counted as demands for registration or registrations effected pursuant to Section 2.2.

(d) Once the Company has become subject to the reporting requirements of the Exchange Act, the Company will use its reasonable efforts to maintain its eligibility for registrations on Form S-3 or any similar short form registration available for the sale of Registrable Securities.

2.5 Expenses of Registration. Except as specifically provided herein, all Registration Expenses incurred in connection with any registration, qualification or compliance pursuant to Section 2.2 or any registration under Section 2.3 or Section 2.4 herein shall be borne by the Company. All Selling Expenses incurred in connection with any registrations hereunder, shall be borne by the holders of the securities so registered *pro rata* on the basis of the number of shares so registered. The Company shall not, however, be required to pay for expenses of any registration proceeding begun pursuant to Section 2.2 or 2.4, the request of which has been subsequently withdrawn by the Initiating Holders unless (a) the withdrawal is based upon material adverse information concerning the Company of which the Initiating Holders were not aware at the time of such request or (b) the Holders of a majority of Registrable Securities agree to forfeit their right to one requested registration pursuant to Section 2.2, in which event such right shall be forfeited by all Holders). If the Holders are required to pay the Registration Expenses, such expenses shall be borne by the holders of securities (including Registrable Securities) requesting such registration in proportion to the number of shares for which registration was requested. If the Company is required to pay the Registration Expenses of a withdrawn offering pursuant to clause (a) above, then such registration shall not be deemed to have been effected for purposes of determining whether the Company shall be obligated pursuant to Section 2.2(c)(ii) or 2.4(b)(v), as applicable, to undertake any subsequent registration.

2.6 Obligations of the Company. Whenever required to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use all reasonable best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for up to one year or, if earlier, until the Holder or Holders have completed the distribution related thereto; *provided, however*, that at any time, upon written notice to the participating Holders and for a period not to exceed sixty (60) days thereafter (the ***"Suspension Period"***), the Company may suspend the use or effectiveness of any registration statement (and the Initiating Holders hereby agree not to offer or sell any Registrable Securities pursuant to such registration statement during the Suspension Period) if the Company reasonably believes that the Company may, in the absence of such delay or suspension hereunder, be required under state or federal securities laws to disclose any corporate development the disclosure of which could reasonably be expected to have a material adverse effect upon the Company, its stockholders, a potentially significant transaction or event involving the Company, or any negotiations, discussions, or proposals directly relating thereto. In any such event, the number of days for which such registration statement is required to be effective hereunder shall be extended accordingly. In the event that the Company shall exercise its right to delay or suspend the filing or effectiveness of a registration hereunder, the applicable time period during which the registration statement is to remain effective shall be extended by a period of time equal to the duration of the Suspension Period. The Company may extend the Suspension Period for an additional consecutive sixty (60) days with the consent of the holders of a majority of the Registrable Securities registered under the applicable registration statement, which consent shall not be unreasonably withheld. If so directed by the Company, all Holders registering shares under such registration statement shall use their reasonable efforts to deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in such Holders' possession, of the prospectus relating to such Registrable Securities current at the time of receipt of such notice.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement for the period set forth in subsection (a) above.

(c) Furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and furnish such other documents, and take such other actions as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; *provided* that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter(s) of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement, subject to the limitations with respect to such underwriting agreement set forth elsewhere in this Agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing. The Company will use reasonable best efforts to amend or supplement such prospectus in order to cause such prospectus not to include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange or over-the-counter market on which similar securities issued by the Company are then listed, if applicable, or, if no such similar securities issued by the Company are listed, such exchange as Holders of a majority of the Registrable Securities registered may request.

(h) Provide a transfer agent and registrar for such Registrable Securities and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(i) Make available for inspection by any Holder of Registrable Securities covered by such registration statement, any underwriter participating in any disposition pursuant to such registration statement, and any attorney, accountant or other agent retained by any such seller or underwriter, all financial and other records, pertinent corporate documents and properties of the Company, and cause the Company's officers, directors, employees and independent accountants to supply all information reasonably requested by any such Holder, underwriter, attorney, accountant or agent in connection with such registration statement; *provided, however*, that any records, information or documents that are furnished by the Company and that are non-public shall be used only in connection with such registration and shall be kept strictly confidential by any Holder of Registrable Securities except to the extent disclosure of such records, information or documents is required by written order of a court or other governmental authority having jurisdiction.

(j) Advise each Holder of Registrable Securities covered by such registration statement, promptly after it shall receive notice or obtain knowledge thereof, of the issuance of any stop order by the Commission suspending the effectiveness of such registration statement or the initiation or threatening of any proceeding for such purpose and promptly use its best efforts to prevent the issuance of any stop order or to obtain its withdrawal if such stop order should be issued.

(k) Use its reasonable efforts to furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and (ii) a letter, dated as of such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters.

(l) At least forty-eight (48) hours prior to the filing of any registration statement or prospectus, or any amendment or supplement to such registration statement or prospectus, furnish a copy thereof to each Holder of Registrable Securities covered by such registration statement and refrain from filing any such registration statement, prospectus, amendment or supplement to which counsel selected by the holders of a majority of the Registrable Securities being registered shall have reasonably objected on the grounds that such document does not comply in all material respects with the requirements of the Securities Act or the rules and regulations thereunder, unless, in the case of an amendment or supplement, in the opinion of counsel for the Company the filing of such amendment or supplement is reasonably necessary to protect the Company from any liabilities under any applicable federal or state law and such filing will not violate applicable laws.

(m) Make senior executives of the Company reasonably available to assist the underwriters with respect to, and accompany the underwriters on the so-called "road show", in connection with the marketing efforts for, and the distribution and sale of Registrable Securities pursuant to a registration statement.

2.7 Termination of Registration Rights. All registration rights granted under this Section 2 shall terminate and be of no further force and effect five (5) years after the date of the Initial Offering.

2.8 Delay of Registration; Furnishing Information.

(a) No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

(b) It shall be a condition precedent to the obligations of the Company to take any action pursuant to Section 2.2, 2.3 or 2.4 that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them and the intended method of disposition of such securities as shall be required to effect the registration of their Registrable Securities.

(c) Except as set forth in Section 2.5, the Company shall have no obligation with respect to any registration requested pursuant to Section 2.2 or Section 2.4 if, due to the operation of subsection 2.2(b), the number of shares or the anticipated aggregate offering price of the Registrable Securities to be included in the registration does not equal or exceed the number of shares or the anticipated aggregate offering price required to originally trigger the Company's obligation to initiate such registration as specified in Section 2.2 or Section 2.4, whichever is applicable.

2.9 Indemnification. In the event any Registrable Securities are included in a registration statement under Sections 2.2, 2.3 or 2.4:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, members, officers, directors and stockholders of each Holder, any grantor or beneficiary of a Holder that is a trust, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a ***"Violation"***) by the Company: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement or incorporated reference therein, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law in connection with the offering covered by such registration statement; and the Company will reimburse each such Holder, partner, member, officer, director, stockholder, grantor or beneficiary underwriter or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; *provided, however*, that the indemnity agreement contained in this Section 2.9(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such Holder, partner, member, officer, director, underwriter or controlling person of such Holder.

(b) To the extent permitted by law, each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration qualifications or compliance is being effected, indemnify and hold harmless the Company, each of its directors, its officers and each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter and any other Holder selling securities under such registration statement or any of such other Holder's partners, directors, officers, stockholders, grantors or beneficiaries or any person who controls such Holder, against any losses, claims, damages or liabilities (joint or several) to which the Company or any such director, officer, controlling person, underwriter or other such Holder or partner, director, officer, stockholder, grantor or beneficiary or controlling person of such other Holder may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any of the following

statements: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement or incorporated reference therein, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act (collectively, a ***"Holder Violation"***), in each case to the extent (and only to the extent) that such Holder Violation occurs in reliance upon and in conformity with written information furnished by such Holder under an instrument duly executed by such Holder and stated to be specifically for use in connection with such registration; and each such Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or other Holder, or partner, officer, director, stockholder, grantor or beneficiary, or controlling person of such other Holder in connection with investigating or defending any such loss, claim, damage, liability or action if it is judicially determined that there was such a Holder Violation; *provided, however*, that the indemnity agreement contained in this Section 2.9(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; *provided further*, that the obligation to indemnify hereunder will be several, not joint and several, among such holders of Registrable Securities, and in no event shall any indemnity under this Section 2.9 exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.9 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.9, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; *provided, however*, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation. The indemnity agreements contained in this Section 2.9 shall not apply to amounts paid in settlement of any loss, claim, damage, liability or action if such settlement is effected without the consent of the indemnifying party, which consent shall not be unreasonably withheld.

(d) If the indemnification provided for in this Section 2.9 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; *provided*, that in no event shall any contribution by a Holder hereunder exceed the net proceeds from the offering received by such Holder.

(e) The obligations of the Company and Holders under this Section 2.9 shall survive completion of any offering of Registrable Securities in a registration statement and the termination of this Agreement. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation.

2.10 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee of Registrable Securities that (a) is a subsidiary, parent, general partner, limited partner, retired partner, member or retired member, stockholder, or grantor or beneficiary of a Holder, (b) is a Holder's family member or trust for the benefit of an individual Holder or members of such Holders immediate family, (c) acquires at least five hundred thousand (500,000) shares of Registrable Securities (as adjusted for stock splits and combinations); (d) acquires all of such Holder's Registrable Securities; or (e) is an entity affiliated by common control (or other related entity) with such Holder, *provided, however*, (i) the transferor shall, within ten (10) days after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned and (ii) such transferee shall agree to be subject to all restrictions set forth in this Agreement. Notwithstanding the foregoing, such rights may not be assigned to a transferee which the Company reasonably believes is a competitor or intends to become a competitor of the Company (but in no event shall any bank, insurance company or other institutional investor be or be deemed to be a competitor of the Company for purposes hereof).

2.11 Amendment of Registration Rights. Any provision of this Section 2 may be amended and the observance thereof may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and the Holders of at least a majority of the Registrable Securities then outstanding, including at least (i) a majority in interest of the Registrable Securities then outstanding, issuable or issued upon conversion of the Series B-1 Stock (voting as a separate class) and (ii) seventy-five percent

(75%) in interest of the Registrable Securities then outstanding issuable or issued upon conversion of Series D-1 Stock and Series E Stock (voting together as a single class). Any amendment or waiver effected in accordance with this Section 2.11 shall be binding upon each Holder and the Company. By acceptance of any benefits under this Section 2. Holders of Registrable Securities hereby agree to be bound by the provisions hereunder.

2.12 Limitation on Subsequent Registration Rights. Other than as provided in Section 5.10, after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would grant such holder registration rights on a parity with or senior or superior to those granted to the Holders hereunder, other than the right to a Special Registration Statement.

2.13 "Market Stand-Off" Agreement. Each Holder hereby agrees that such Holder shall not sell, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any Common Stock (or other securities) of the Company held by such Holder (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act (or such longer period, not to exceed 18 days after the expiration of the 180-day period, as the underwriters or the Company shall request in order to facilitate compliance with NASD Rule 2711), provided that

(i) such agreement shall apply only to the Company's Initial Offering; and

(ii) all officers and directors of the Company and holders of at least one percent (1%) of the Company's voting securities enter into similar agreements on terms no more favorable to such persons than those entered into hereto.

2.14 Agreement to Furnish Information. Each Holder agrees to execute and deliver a lock-up agreement as may be reasonably requested by the Company or the underwriter that are consistent with the Holder's obligations under Section 2.13. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, each Holder shall provide, within twenty (20) days of such request, such information as may be required by the Company to comply with the rules and regulations promulgated by the SEC or the National Association of Securities Dealers, Inc. The obligations described in Section 2.13 and this Section 2.14 shall not apply to a Special Registration Statement. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day period (or such longer period, not to exceed 18 days after the expiration of the 180-day period, as the underwriters or the Company shall request in order to facilitate compliance with NASD Rule 2711). Each Holder agrees that any transferee of any shares of Registrable Securities shall be bound by Sections 2.13 and 2.14. The underwriters of the Company's stock are intended third party beneficiaries of Sections 2.13 and 2.14 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

2.15 Rule 144 Reporting. With a view to making available to the Holders the benefits of certain rules and regulations of the SEC that may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its best efforts to:

(a) Make and keep public information available, as those terms are understood and defined in SEC Rule 144 or any similar or analogous rule promulgated under the Securities Act, at all times after the effective date of the first registration filed by the Company for an offering of its securities to the general public;

(b) File with the SEC, in a timely manner, all reports and other documents required of the Company under the Exchange Act; and

(c) So long as a Holder owns any Registrable Securities, furnish to such Holder forthwith upon request: a written statement by the Company as to its compliance with the reporting requirements of said Rule 144 of the Securities Act, and of the Exchange Act (at any time after it has become subject to such reporting requirements); a copy of the most recent annual or quarterly report of the Company filed with the Commission; and such other reports and documents as a Holder may reasonably request in connection with availing itself of any rule or regulation of the SEC allowing it to sell any such securities without registration.

SECTION 3. COVENANTS OF THE COMPANY.

3.1 Basic Financial Information and Reporting.

(a) The Company will maintain true books and records of account in which full and correct entries will be made of all its business transactions pursuant to a system of accounting established and administered in accordance with generally accepted accounting principles consistently applied (except as noted therein or as disclosed to the recipients thereof), and will set aside on its books all such proper accruals and reserves as shall be required under generally accepted accounting principles consistently applied.

(b) As soon as practicable after the end of each fiscal year of the Company, and in any event within one hundred twenty (120) days thereafter, the Company will furnish each Investor a consolidated balance sheet of the Company and its subsidiaries (if any), as at the end of such fiscal year, and a consolidated statement of income and a consolidated statement of cash flows of the Company and its subsidiaries (if any), for such year, all prepared in accordance with generally accepted accounting principles consistently applied (except as noted therein). Such financial statements shall be audited by and accompanied by a report and opinion thereon by independent public accountants of a recognized national standing selected by the Company's Board of Directors. The Company shall concurrently provide financial statements setting forth in each case in comparative form the figures for the previous fiscal year and the then most recently approved budget, all in reasonable detail.

(c) The Company will furnish each Major Investor and Significant Stockholder, as soon as practicable after the end of the first, second and third quarterly accounting periods in each fiscal year of the Company, and in any event within forty-five (45) days thereafter, a consolidated balance sheet of the Company and its subsidiaries (if any) as of the end of each such quarterly period, and a consolidated statement of income and a consolidated

statement of cash flows of the Company and its subsidiaries (if any) for such period and for the current fiscal year to date, prepared in accordance with generally accepted accounting principles consistently applied (except as noted therein), including a narrative discussion and analysis of the results of operations and financial condition of the Company, with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made. If the Company's independent public accountants submit a report or opinion thereon, such report or opinion shall also be furnished to the Major Investors and Significant Stockholders.

(d) The Company will furnish each Major Investor and Significant Stockholder: (i) at least thirty (30) days prior to the beginning of each fiscal year an annual budget and operating plans for such fiscal year (and as soon as available, any subsequent written revisions thereto); and (ii) as soon as practicable after the end of each month, and in any event within thirty (30) days thereafter, a consolidated balance sheet of the Company and its subsidiaries (if any) as of the end of each such month, and a consolidated statement of income and a consolidated statement of cash flows of the Company and its subsidiaries (if any) for such month and for the current fiscal year to date, complete with variation analysis from budget and prior period, and prepared in accordance with generally accepted accounting principles consistently applied (except as noted therein), with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made. If the Company's independent public accountants submit a report or opinion thereon, such report or opinion shall also be furnished to the Major Investors and Significant Stockholders.

3.2 Inspection Rights. Each Major Investor and Significant Stockholder shall have the right to visit and inspect any of the properties of the Company or any of its subsidiaries, and to discuss the affairs, finances and accounts of the Company or any of its subsidiaries with its officers, and to review such information as is reasonably requested all at such reasonable times and as often as may be reasonably requested; *provided, however,* that the Company shall not be obligated under this Section 3.2 with respect to a competitor of the Company or with respect to information which the Board of Directors determines in its sole discretion and in good faith is confidential or, upon the advise of counsel, is attorney-client privileged and should not, therefore, be disclosed.

3.3 Confidentiality of Records. Each Investor agrees to use, and to use the same degree of care as such Investor uses to protect its own confidential information to keep confidential any information furnished to such Investor that the Company identifies as being confidential or proprietary (so long as such information is not in the public domain), except that such Investor may disclose such proprietary or confidential information (i) to any partner, limited partner, subsidiary or parent of such Investor or, in the case of an Investor that is a trust, its grantors and beneficiaries (for the purpose of evaluating its investment in the Company) as long as such partner, subsidiary or parent is advised of the confidentiality provisions of this Section 3.3; (ii) at such time as it enters the public domain through no fault of such Investor; (iii) that is communicated to it free of any obligation of confidentiality; or (iv) that is developed by Investor or its agents independently of and without reference to any confidential information communicated by the Company.

3.4 Reservation of Common Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Preferred Stock, all Common Stock issuable from time to time upon such conversion.

3.5 Board Approvals. In addition to the voting requirements outlined in Section 2(b) of the Company's Amended and Restated Certificate of Incorporation, as amended from time to time, the approval of a simple majority of the Board of Directors will be required to:

(a) amend the Company's Certificate of Incorporation or Bylaws;

(b) increase or decrease in the number of authorized shares of Common Stock or Preferred Stock;

(c) declare or issue any dividends or distributions on, or redemptions of, the Company's capital stock (except for acquisitions of Common Stock pursuant to agreements that permit the repurchase of such shares or the right of first refusal upon a proposed transfer of such shares that are in effect as of the date of this Agreement or that are approved by the Board after the date of this Agreement);

(d) effect any extraordinary corporate transactions including the sale or exclusive license of all or substantially all the assets of the Company, mergers, consolidations, other business combinations, recapitalizations and liquidations;

(e) acquire the stocks or all or substantially all of the assets of any other entity, strategic alliances, technology licensing arrangements or other corporate partnering relationships;

(f) issue debt (except as to accounts payable and equipment lease debt incurred in the ordinary course of business, so long as equipment lease debt does not exceed $5,000,000 in the aggregate);

(g) authorize the issuance of equity securities (or securities convertible or exchangeable for equity securities);

(h) increase the number of directors of the Company;

(i) increase the size of the employee option pool;

(j) forgive, waive or change the payment terms of any indebtedness for borrowed money owed to the Company as of the date of this Agreement;

(k) appoint or dismiss the chief executive officer, chief financial officer or chief medical officer,

(l) approve the annual budgets and strategic plans of the Company and periodic changes thereto,

(m) approve any commitment for capital expenditure in excess of $100,000;

(n) guarantee the obligations of any person;

(o) create or establish a pledge, mortgage, lien or other security interest in or over the assets of the Company;

(p) approve and cause the dissolution, voluntary bankruptcy or liquidation of the Company;

(q) approve the settlement of any major claim, suit, action, case or proceeding;

(r) approve any related transaction between the Company, on the one hand, and a stockholder of the Company, on the other hand; and

(s) change the foregoing list of (a) through (r).

The foregoing will also apply to any subsidiary of the Company.

3.6 Directors' Liability and Indemnification. The Company's Certificate of Incorporation and Bylaws shall provide (a) for elimination of the liability of director to the maximum extent permitted by law and (b) for indemnification of directors for acts on behalf of the Company to the maximum extent permitted by law. The Company shall maintain Directors and Officers insurance with a carrier and in an amount satisfactory to the Board of Directors.

3.7 Reimbursement for Expenses. The Company shall reimburse directors at cost for all customary and reasonable expenses (including reasonable travel expenses) incurred in connection with attendance at meetings of the Board of Directors or any committee thereof.

3.8 Meetings of the Board of Directors. The Board of Directors shall meet either in person or via telephone at least four times per calendar year. At each such meeting the Company's chief executive officer shall provide operational updates including, but not limited to, clinical progress to annual clinical plan and financial status to annual budget.

3.9 Qualified Small Business Stock. So long as the Company's Board of Directors has not determined that it is not in the best interests of and not unduly burdensome to the Company to comply with Section 1202 of the Internal Revenue Code of 1986, as amended (the "***Code***"), the Company shall use reasonable efforts to cause the shares of Series B-1 Stock (and the shares of Common Stock issued or issuable upon conversion of thereof) held by the Investors to continue to qualify as "Qualified Small Business Stock" as defined in Section 1202(c) of the Code. Further, the Company covenants and agrees, on the reasonable request of any Investor, to conduct a reasonable investigation into the question of whether the shares of Series B-1 Stock (and the shares of Common Stock issued or issuable upon conversion of thereof) held by the Investors, remain "qualified small business stock" within the meaning of the Code, and to thereafter deliver to such Investor a duly executed Certificate of Representations in the form attached hereto as Exhibit B (the "***QSBS Certificate***"). If the Company is unable to deliver an executed QSBS Certificate because representation statement 2 in the QSBS Certificate is inaccurate, the Company covenants and agrees to deliver a statement explaining the reasons for such inaccuracy.

3.10 Assignment of Right of First Refusal. In the event the Company elects not to exercise any right of first refusal or right of first offer the Company may have on a proposed transfer of any of the Company's outstanding capital stock pursuant to the Company's charter documents, by contract or otherwise, the Company shall assign such right of first refusal or right of first offer to the Major Investors; *provided, however*, that the Company shall not assign its right of first refusal set forth in that certain Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of the date hereof, by and among the Company and the parties thereto. The Company shall provide each Major Investor with written notice of the Company's election not to exercise any such right of first refusal, which written notice shall be provided no less than twenty (20) days prior to the date of which the Company's right of first refusal would expire. In the event of such assignment, each Major Investor shall have a right to purchase its *pro rata* portion of the capital stock proposed to be transferred. Each Major Investor's pro rata portion shall be equal to the product obtained by multiplying (i) the aggregate number of shares proposed to be transferred by (ii) a fraction, the numerator of which is the number of shares of Registrable Securities held by such Major Investor at the time of the proposed transfer and the denominator of which is the total number of shares owned by all Major Investors at the time of such proposed transfer.

3.11 Termination of Covenants. All covenants of the Company contained in Section 3 of this Agreement shall expire and terminate as to each Investor upon the earlier of (i) the effective date of the registration statement pertaining to the Initial Offering; or (ii) upon the date of the closing of an Acquisition or Asset Transfer, each as defined in the Company's Amended and Restated Certificate of Incorporation as in effect as of the date hereof (a "***Change in Control***"); *provided, however*, that in the event of an Asset Transfer, the covenants contained in Sections 3.1, 3.3, 3.5, 3.6, and 3.7 of this Agreement shall survive until all sale proceeds available for distribution to the stockholders are distributed to such stockholders.

SECTION 4. RIGHTS OF FIRST REFUSAL.

4.1 Subsequent Offerings. Subject to applicable securities laws, each Major Investor shall have a right of first refusal to purchase its *pro rata* share of all Equity Securities, as defined below, that the Company may, from time to time, propose to sell and issue after the date of this Agreement, other than the Equity Securities excluded by Section 4.7. Each Major Investor's *pro rata* share is equal to the ratio of (a) the number of shares of the Company's Common Stock (including all shares of Common Stock issued or issuable upon conversion of the Shares or upon the exercise of any outstanding warrants or options) that such Major Investor is deemed to be a holder of immediately prior to the issuance of such Equity Securities to (b) the total number of shares of the Company's outstanding Common Stock (including all shares of Common Stock issued or issuable upon conversion of the Shares or upon the exercise of any outstanding warrants or options) immediately prior to the issuance of the Equity Securities. The term "***Equity Securities***" shall mean (i) any Common Stock, any series of preferred stock or other security of the Company, (ii) any security convertible into or exercisable or exchangeable for, with or without consideration, any Common Stock, any series of preferred stock or other security (including any option to purchase such a convertible security), (iii) any security carrying any warrant or right to subscribe to or purchase any Common Stock, any series of preferred stock or other security or (iv) any such warrant or right.

4.2 Exercise of Rights. If the Company proposes to issue any Equity Securities, it shall give each Major Investor written notice of its intention, describing the Equity Securities, the price and the terms and conditions upon which the Company proposes to issue the same. Each Major Investor shall have twenty (20) days from the giving of such notice to agree to purchase its *pro rata* share of the Equity Securities for the price and upon the terms and conditions specified in the notice by giving written notice to the Company and stating therein the quantity of Equity Securities to be purchased. Notwithstanding the foregoing, the Company shall not be required to offer or sell such Equity Securities to any Major Investor who would cause the Company to be in violation of applicable federal securities laws by virtue of such offer or sale.

4.3 Issuance of Equity Securities to Other Persons. If not all of the Major Investors elect to purchase their *pro rata* share of the Equity Securities, then the Company shall promptly notify in writing the Major Investors who do so elect (the "***Fully-Exercising Investors***") and shall offer such Fully-Exercising Investors the right to acquire such unsubscribed shares. The Fully-Exercising Investors shall have ten (10) days after receipt of such notice to notify the Company of its election to purchase all or a portion thereof of the unsubscribed shares; *provided*, that if the Fully-Exercising Investors elect to purchase in the aggregate more than 100% of the aggregate number of such Shares, the number of such Shares sold to each Fully-Exercising Investor shall be reduced proportionately in accordance with each electing Fully-Exercising Investor's respective pro-rata share, which for this purpose shall mean the proportion that the number of shares of Common Stock issued and held, or issuable upon conversion and exercise of all convertible or exercisable securities then held, by such Fully-Exercising Investor bears to the total number of shares of Common Stock issued and held, or issuable upon conversion and exercise of all convertible or exercisable securities then held by all Fully-Exercising Investors electing to purchase such available Shares (in such cases, assuming full conversion and exercise of all convertible or exercisable securities). If the Major Investors fail to exercise in full the rights of first refusal, the Company shall have ninety (90) days thereafter to sell the Equity Securities in respect of which the Major Investors' rights were not exercised, at no less than the price and upon other general terms and conditions not materially more favorable to the purchasers thereof than specified in the Company's notice to the Major Investors pursuant to Section 4.2. If the Company has not sold such Equity Securities within ninety (90) days of the notice provided pursuant to Section 4.2, the Company shall not thereafter issue or sell any Equity Securities, without first offering such securities to the Major Investors in the manner provided above.

4.4 Sale Without Notice. In lieu of giving notice to the Major Investors prior to the issuance of Equity Securities as provided in Section 4.2, the Company may elect to give notice to the Major Investors within thirty (30) days after the issuance of Equity Securities. Such notice shall describe the type, price and terms of the Equity Securities. Each Major Investor shall have twenty (20) days from the date of receipt of such notice to elect to purchase up to the number of shares that would, if purchased by such Major Investor, maintain such Major Investor's *pro rata* share (as set forth in Section 4.1) of the Company's equity securities. The closing of such sale shall occur within sixty (60) days of the date of notice to the Major Investors and on the same terms and conditions as the other purchasers of such Equity Securities.

4.5 Termination and Waiver of Rights of First Refusal. The rights of first refusal established by this Section 4 shall not apply to, and shall terminate upon the earlier of (i) the

closing of the Company's Initial Offering or (ii) a Change in Control. The rights of first refusal established by this Section 4 may be amended, or any provision waived with the written consent of Major Investors holding a majority of the Registrable Securities then held by all Major Investors.

4.6 Transfer of Rights of First Refusal. The rights of first refusal of each Major Investor under this Section 4 may be transferred to the same parties, subject to the same restrictions as any transfer of registration rights pursuant to Section 2.10.

4.7 Excluded Securities. The rights of first refusal established by this Section 4 shall have no application to any of the following Equity Securities:

(a) Common Stock and/or options, warrants or other Common Stock purchase rights and the Common Stock issued pursuant to such options, warrants or other rights issued or to be issued to employees, officers or directors of, or consultants or advisors to the Company or any subsidiary, pursuant to stock purchase or stock option plans or other arrangements that are approved by the Board of Directors;

(b) any Equity Securities issued or issuable pursuant to any rights or agreements, options, warrants or convertible securities outstanding as of the date of this Agreement;

(c) any Equity Securities issued pursuant to any such rights or agreements granted after the date of this Agreement, so long as the rights of first refusal established by this Section 4 were complied with or were inapplicable pursuant to any provision of this Section 4.7 with respect to the initial sale or grant by the Company of such rights or agreements;

(d) any Equity Securities issued for consideration other than cash pursuant to a merger, consolidation, strategic alliance, acquisition or similar business combination approved by the Board of Directors following the date of this Agreement and *provided* such issuances are primarily for other than equity financing purposes;

(e) any Equity Securities issued in connection with the settlement of disputed amount approved by the Board of Directors following the date of this Agreement;

(f) any Equity Securities issued in connection with any stock split, stock dividend or recapitalization by the Company approved by the Board of Directors following the date of this Agreement;

(g) shares of Common Stock issued upon conversion of shares of the Company's Preferred Stock or any other series of preferred stock;

(h) any Equity Securities issued pursuant to any equipment loan or leasing arrangement, real property leasing arrangement, or debt financing from a bank or similar financial or lending institution, the primary purpose of which is other than to obtain financing for the Company through the issuance of equity securities, approved by the Board of Directors;

(i) any Equity Securities that are issued by the Company pursuant to a registration statement filed under the Securities Act;

(j) any Equity Securities issued in connection with strategic transactions involving the Company and other entities, including (i) joint ventures, manufacturing, marketing or distribution arrangements or (ii) technology transfer or development arrangements in any event entered into primarily for non-capital raising purposes; *provided* that the issuance of shares therein has been approved by the Board of Directors; or

(k) the Notes issuable by the Company pursuant to the terms of the Loan Facility Agreement (and the Series E Stock issuable upon conversion of the Notes and the Common Stock issuable upon conversion of the Series E Stock).

SECTION 5. MISCELLANEOUS.

5.1 Governing Law. This Agreement shall be governed by and construed under the laws of the State of Delaware in all respects as such laws are applied to agreements among Delaware residents entered into and to be performed entirely within Delaware. The parties agree that any action brought by either party under or in relation to this Agreement, including without limitation to interpret or enforce any provision of this Agreement, shall be brought in, and each party agrees to and does hereby submit to the jurisdiction and venue of, any state or federal court located in the County of San Francisco, California. Each party irrevocably and unconditionally waives any right it may have to a trial by jury in respect of any litigation directly or indirectly arising out of or relating to this Agreement.

5.2 Successors and Assigns. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the parties hereto and their respective successors, assigns, heirs, executors, and administrators and shall inure to the benefit of and be enforceable by each person who shall be a holder of Registrable Securities from time to time; *provided, however*, that prior to the receipt by the Company of adequate written notice of the transfer of any Registrable Securities specifying the full name and address of the transferee, the Company may deem and treat the person listed as the holder of such shares in its records as the absolute owner and holder of such shares for all purposes, including the payment of dividends or any redemption price.

5.3 Entire Agreement. This Agreement, the Exhibits and Schedules hereto, the Purchase Agreement and the other documents delivered pursuant thereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and no party shall be liable or bound to any other in any manner by any oral or written representations, warranties, covenants and agreements except as specifically set forth herein and therein. Each party expressly represents and warrants that it is not relying on any oral or written representations, warranties, covenants or agreements outside of this Agreement.

5.4 Severability. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

5.5 Amendment and Waiver.

(a) Except as otherwise expressly provided, this Agreement may be amended or modified only upon the written consent of the Company and the holders of at least a majority of the then-outstanding Registrable Securities including at least (i) a majority in interest of the Registrable Securities then outstanding, issuable or issued upon conversion of the Series B-1 Stock (voting as a separate class) and (ii) seventy-five percent (75%) in interest of the Registrable Securities then outstanding, issuable or issued upon conversion of Series D-1 Stock and Series E-1 Stock (voting together as a single class).

(b) Except as otherwise expressly provided, the obligations of the Company and the rights of the Holders under this Agreement may be waived only with the written consent of the holders of at least a majority of the then-outstanding Registrable Securities including at least (i) a majority in interest of the Registrable Securities then outstanding, issuable or issued upon conversion of the Series B-1 Stock (voting as a separate class) and (ii) seventy-five percent (75%) in interest of the Registrable Securities then outstanding, issuable or issued upon conversion of Series D-1 Stock and Series E Stock (voting together as a single class).

(c) For the purposes of determining the number of Holders or Investors entitled to vote or exercise any rights hereunder, the Company shall be entitled to rely solely on the list of record holders of its stock as maintained by or on behalf of the Company.

5.6 Delays or Omissions. It is agreed that no delay or omission to exercise any right, power, or remedy accruing to any party, upon any breach, default or noncompliance by another party under this Agreement shall impair any such right, power, or remedy, nor shall it be construed to be a waiver of any such breach, default or noncompliance, or any acquiescence therein, or of any similar breach, default or noncompliance thereafter occurring. It is further agreed that any waiver, permit, consent, or approval of any kind or character on any party's part of any breach, default or noncompliance under the Agreement or any waiver on such party's part of any provisions or conditions of this Agreement must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement, by law, or otherwise afforded to any party, shall be cumulative and not alternative.

5.7 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the party to be notified at the address as set forth on the signature pages hereof or Exhibit A hereto or at such other address or electronic mail address as such party may designate by ten (10) days advance written notice to the other parties hereto.

5.8 Attorneys' Fees. In the event that any suit or action is instituted under or in relation to this Agreement, including without limitation to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

5.9 Titles and Subtitles. The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

5.10 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company shall issue Equity Securities in accordance with Section 4.7 (d), (e) (h) or (j) of this Agreement, any purchaser of such Equity Securities may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and shall be deemed an "***Investor***," a "***Holder***" and a party hereunder.

5.11 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument. Copies of original signature pages sent by facsimile and/or PDF shall have the same effect as signature pages containing original signatures

5.12 Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities or persons or persons or entities under common management or control shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

5.13 Pronouns. All pronouns contained herein, and any variations thereof, shall be deemed to refer to the masculine, feminine or neutral, singular or plural, as to the identity of the parties hereto may require.

5.14 Amendment of Prior Agreement. The Prior Agreement is hereby amended and superseded in its entirety and restated herein. Such amendment and restatement is effective upon the execution of this Agreement by the Company and the parties required for an amendment pursuant to Section 5.5 of the Prior Agreement. Upon such execution, all provisions of, rights granted and covenants made in the Prior Agreement are hereby waived, released and superseded in their entirety and shall have no further force or effect, including, without limitation, all rights of first refusal and any notice period associated therewith otherwise applicable to the transactions contemplated by the Purchase Agreement.

[THIS SPACE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

COMPANY:

METABOLEX, INC.

By: /s/ Harold Van Wart
Harold Van Wart
President and Chief Executive Officer

Abbott Laboratories

By: /s/ W.J. CHASE

Print Name: W.J. CHASE

Title: VP & TREASURER

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

By: AllianceBernstein ESG Venture Management, L.P., its general partner

By: AllianceBernstein Global Derivatives Corporation, its general partner

By: /s/ illegible

Print Name:

Title:

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

ALTA BIOPHARMA PARTNERS III, L.P.

By: Alta BioPharma Management III, LLC,

By: /s/ illegible
Director

ALTA BIOPHARMA PARTNERS III GMBH & CO. BETEILIGUNGS KG

By: Alta BioPharma Management III, LLC

By: /s/ illegible
Director

ALTA EMBARCADERO BIOPHARMA PARTNERS III, LLC

By: /s/ illegible
Manager

ALTANA INNOVATIONSFONDS GMBH

By: /s/ Paul Reuter

Print Name: Paul Reuter

Title: Managing Director

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

BANCA DELLA SVIZZIERA ITALIANA

By:	/s/ M. Rinaldi	/s/ R. Paglia
Print Name:	*M. Rinaldi*	R. PAGLIA
Title:		

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

THE BAY CITY CAPITAL FUND II, L.P.

By: Bay City Capital Management II LLC, its General Partner

By: /s/ Carl Goldfischer
Name: Carl Goldfischer
Title: Manager and Managing Director

THE BAY CITY CAPITAL FUND II, CO-INVESTMENT FUND, L.P.

By: Bay City Capital Management II LLC, its General Partner

By: /s/ Carl Goldfischer
Name: Carl Goldfischer
Title: Manager and Managing Director

BENCH INTERNATIONAL

By: /s/ Stephen J. Williams

Print Name: Stephen J. Williams

Title: President

STEPHEN J. WILLIAMS

/s/ Stephen J. Williams

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

Stephen J. Bergman Revocable Trust
dated 1/22/99

By: /s/ Stephen Bergman

Print Name: Stephen Bergman

Title: Officer

BIOTECH TURNAROUND FUND B.V.

By: /s/ D. A. van den Noort
Name: D. A. van den Noort
Title: CIO BTF

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

BIRCHMERE VENTURES II, L.P.

By: /s/ Gary G. Glausser
Name: GARY G. GLAUSSER
Title PARTNER

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

CHARTER ENTREPRENEURS FUND IV, L.P.

By: /s/ illegible

Print Name: _____

Title: _____

CHARTER ADVISORS FUND IV, L.P.

By: /s/ illegible

Print Name: _____

Title: _____

CHARTER VENTURES

By: /s/ illegible

Print Name: _____

Title: _____

CHARTER VENTURES II L.P.

By: /s/ Illegible

Print Name: _____

Title: _____

CHARTER VENTURES IV, L.P.

By: /s/ Illegible

Print Name: _____

Title: _____

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P.
By: J.E. Flynn Capital LLC,
General Partner

By: /s/ Illegible
Name:
Title:

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: Deerfield Management Company
By: Flynn Management LLC,
General Partner

By: /s/ Illegible
Name:
Title:

JOHNSON & JOHNSON DEVELOPMENT CORPORATION

By: /s/ Asish K. Xavier
Name: ASISH K. XAVIER
Title Vice President, Venture Investments

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

THE KRESGE FOUNDATION

By: /s/ Robert J. Manilla

Print Name: ROBERT J. MANILLA

Title: Chief Investment Officer

KBC PRIVATE EQUITY NV

By: /s/ Floris Vansina

Print Name: Floris Vansina

Title: Managing Director
KBC Private Equity NV

By: /s/ Ann De Meulenaere

Print Name: Ann De Meulenaere

Title: Legal Advisor
KBC Private Equity NV

KBC PRIVATE EQUITY FUND BIOTECH NV

By: _____

Print Name: _____

Title: _____

By: _____

Print Name: _____

Title: _____

KBC PRIVATE EQUITY NV

By: _____

Print Name: _____

Title: _____

By: _____

Print Name: _____

Title: _____

KBC PRIVATE EQUITY FUND BIOTECH NV

By: /s/ Illegible

Print Name: _____

Title: _____

By: _____

Print Name: _____

Title: _____

KBC EQUITY FUND - BIOTECHNOLOGY

By: /s/ Werner Van Steen

Print Name: WERNER VAN STEEN

Title: CHAIRMAN

By: /s/ Guido Billion

Print Name: GUIDO BILLION

Title: DIRECTOR

KBC EQUITY FUND - PHARMA

By: /s/ Werner Van Steen

Print Name: WERNER VAN STEEN

Title: CHAIRMAN

By: /s/ Guido Billion

Print Name: GUIDO BILLION

Title: DIRECTOR

MERLIN BIOMED PRIVATE EQUITY FUND, L.P.

By: /s/ Illegible
Name:
Title

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

MPM BIOEQUITIES MASTER FUND, LP

By: MPM BioEquities GP, L.P., its General Partner

By: /s/ John Vander Vort
Name: JOHN VANDER VORT
Title: MANAGER

NEXT CHAPTER HOLDINGS LP

By: /s/ Mark R. Pattis

Print Name: Mark R. Pattis

Title: President, Corp GP.

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

NORTHCABIN & CO. (NOMINEE FBO ACORN U.S.A)

By: /s/ Richard Watson

Print Name: Richard Watson

Title: Analyst

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

NOVO A/S

By: /s/ Thomas Dyrberg

Print Name: Thomas Dyrberg

Title: Senior Partner

PICTET FUNDS (LUX)

By: /s/ Michèle Berger /s/ Frédéric Fasel

Print Name: Michèle Berger / Frédéric Fasel

Title: Directors

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

TROUT PARTNERS LLC

By: /s/ Illegible
Name:
Title

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

T. ROWE PRICE HEALTH SCIENCES FUND, INC.

By: /s/ Jay S. Markowitz
Name: Jay S. Markowitz
Title Vice President

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

VALINCO INVESTMENTS LIMITED

By: /s/ Catharine Lymbery

Print Name: CATHARINE LYMBERY

Title: DIRECTOR

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

VANTAGEPOINT CDP PARTNERS, LP.
By: VantagePoint CDP Associates, L.P.
By: VantagePoint CDP Associates, L.L.C.,
its General Partner

By: /s/ Alan E. Salzman
Name: Alan E. Salzman
Title: Managing Member

CDP CAPITAL-TECHNOLOGY VENTURES U.S. FUND 2002 L.P.

By: _____
Name:
Title:

By: _____
Name:
Title:

VANTAGEPOINT CDP PARTNERS, LP.
By: VantagePoint CDP Associates, L.P.
By: VantagePoint CDP Associates, L.L.C.,
its General Partner

By: _____
Name:
Title:

CDP CAPITAL-TECHNOLOGY VENTURES U.S. FUND 2002 L.P.

By: /s/ Michel Lefebvre
Name: Michel Lefebvre
Title: Vice-président, administration
Placement privés

By: /s/ Monique Laliberté
Name: Monique Laliberté
Title: Investment Manager

VENROCK PARTNERS, L.P.

By: Venrock Partners Management, LLC
Its: General Partner

By: /s/ Anthony B. Evnin
Name: Anthony B. Evnin
Title: Member

VENROCK ASSOCIATES IV, L.P.

By: Venrock Management IV, LLC
Its: General Partner

By: /s/ Anthony B. Evnin
Name: Anthony B. Evnin
Title: Member

VENROCK ENTREPRENEURS FUND IV, L.P.

By: VEF Management IV, LLC
Its: General Partner

By: /s/ Anthony B. Evnin
Name: Anthony B. Evnin
Title: Member

VERSANT VENTURE CAPITAL II, L.P.

By: Versant Ventures II, LLC
Its: General Partner

/s/ Bradley J. Bolzon, Ph.D.
Bradley J. Bolzon, Ph.D.
Managing Director

VERSANT SIDE FUND II, L.P.

By: Versant Ventures II, LLC
Its: General Partner

/s/ Bradley J. Bolzon, Ph.D.
Bradley J. Bolzon, Ph.D.
Managing Director

VERSANT AFFILIATES FUND II-A, L.P.

By: Versant Ventures II, LLC
Its: General Partner

/s/ Bradley J. Bolzon, Ph.D.
Bradley J. Bolzon, Ph.D.
Managing Director

LUKE EVNIN

By: /s/ Luke Evnin

Print Name: LUKE EVNIN

Title:

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

THE KONRAD HANS VON EMSTER III AND ELIZABETH F. VON EMSTER REVOCABLE TRUST DATED JANUARY 18, 2005

By: /s/ Kurt von Emster

Print Name: KURT VON EMSTER

Title: Trustee

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

DAYTON C. MISFELDT

By: /s/ Dayton Misfeldt

Print Name: Dayton Misfeldt

Title:

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

HAROLD VAN WART

/s/ Harold Van Wart

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT
SIGNATURE PAGE

EXHIBIT A

SCHEDULE OF INVESTORS

NAME AND ADDRESS

ABBOTT LABORATORIES

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

ALTA BIOPHARMA PARTNERS III, L.P.

ALTA EMBARCADERO BIOPHARMA PARTNERS III, LLC

ALTA BIOPHARMA PARTNERS GMBH & CO. BETEILIGUNGS KG

CATHERINE A. BALIN

THE BAY CITY CAPITAL FUND II, L.P.

THE BAY CITY CAPITAL FUND II, CO-INVESTMENT FUND, L.P.

NAME AND ADDRESS

BENCH INTERNATIONAL CONSULTING, LLC

BIOTECH TURNAROUND FUND B.V.

BIRCHMERE VENTURES II, L.P.

BSI SA

VANTAGEPOINT CDP PARTNERS, L.P.

CDP CAPITAL-TECHNOLOGY VENTURES U.S. FUND 2002 L.P.

CHARTER VENTURES ENTREPRENEURS FUND IV, L.P.

CHARTER ADVISORS FUND IV, L.P.

CHARTER VENTURES

NAME AND ADDRESS

CHARTER VENTURES II, L.P.

CHARTER VENTURES IV, L.P.

CIBC WORLD MARKETS CORP.

DEERFIELD SPECIAL SITUATIONS FUND L.P.

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

ALEX FANCELLI

GC & H INVESTMENTS

JOHN HANCOCK LIFE INSURANCE COMPANY

JOHNSON & JOHNSON DEVELOPMENT CORPORATION

NAME AND ADDRESS

KBC PRIVATE EQUITY NV

KBC PRIVATE EQUITY FUND – BIOTECH NV

KBC EQUITY FUND – PHARMA

KBC EQUITY FUND – BIOTECHNOLOGY

NAME AND ADDRESS

LB (SWISS) PRIVATBANK AG, ZURICH

LOMBARD, ODIER & CIE

M&A BANK

MERLIN BIOMED PRIVATE EQUITY FUND, L.P.

MPM BIOEQUITIES MASTER FUND, LP

DAVID MOLOWA

GEORGE DALEY

JASON NUNN

THE KONRAD HANS VON EMSTER III AND ELIZABETH F. VON EMSTER REVOCABLE TRUST DATED JANUARY 18, 2005

KURT WHEELER

NAME AND ADDRESS

LUKE EVNIN

MARY WHEELER

MORANA JOVAN

PAUL WALKER

STEPHEN J. BERGMAN REVOCABLE TRUST DATED 1/22/99

VAUGHN KAILIAN

WILLIAM GREENE

WILLIAM O'LEARY

THE KRESGE FOUNDATION

LEON SMITH

LYSANDER, LLC

MICHAEL KASSEN 2003 GRAT

NEXT CHAPTER HOLDINGS LP

ROPART INVESTMENTS LLC

STEVEN C. TIGHE

THE ELKES FOUNDATION

THE POLLY W GUTH AND JOHN H.J. GUTH CLT #17

THE STUART P. DAVIDSON PROTECTIVE TRUST

NAME AND ADDRESS

UM MULTI-STRATEGY FUND

VICTOR DZAU

ALTANA INNOVATIONSFONDS GMBH

HSBC REPUBLIC BANK (SUISSE) S.A.

VALINCO INVESTMENTS LIMITED

UBS FUND SERVICES (CAYMAN) LTD. REF: DGAM ALTERNATIVE STRATEGY FUND LP

UBS FUND SERVICES (CAYMAN) LTD. REF: DGAM ALTERNATIVE STRATEGY FUND II SPC CELL A

NORTHCABIN AND CO. (NOMINEE F/B/O ACORN U.S.A)

NOVO A/S

PICTET FUNDS – LUX

TRIAXIX TRUST AG ZURICH

NAME AND ADDRESS

TROUT PARTNERS LLC

T. ROWE PRICE HEALTH SCIENCES FUND, INC.

HAROLD VAN WART

VENROCK PARTNERS, L.P.

VENROCK ASSOCIATES IV, L.P.

VENROCK ENTREPRENEURS FUND IV, L.P.

VERSANT VENTURE CAPITAL II, L.P.

VERSANT SIDE FUND II, L.P.

VERSANT AFFILIATES FUND II-A, L.P.

URSULA VOLLENWEIDER

NAME AND ADDRESS

WARNER-LAMBERT COMPANY

STEVEN J. WILLIAMS

Exhibit 10.5

METABOLEX, INC.

AMENDED AND RESTATED VOTING AGREEMENT

October 1, 2009

METABOLEX, INC.

AMENDED AND RESTATED VOTING AGREEMENT

THIS AMENDED AND RESTATED VOTING AGREEMENT (the "***Agreement***") is made and entered into as of October 1, 2009, by and among **METABOLEX, INC.,** a Delaware corporation (the "***Company***") and the persons and entities listed on Exhibit A hereto (the "***Investors***"), the persons listed on Exhibit B hereto (the "***Key Holders***").

WITNESSETH

WHEREAS, the Key Holders hold in the aggregate two hundred eight thousand four hundred fifty (208,450) shares of the Company's Common Stock (the "***Common Stock***");

WHEREAS, certain of the Investors are entering into a Loan Facility Agreement (the "***Loan Facility Agreement***") of even date herewith pursuant to which such Investors may in the future be issued Convertible Promissory Notes (the "***Notes***") that will be convertible into shares of the Company's Series E-1 Preferred Stock or Series E-2 Preferred Stock (collectively, the "***Series E Stock***"), pursuant to the Notes (collectively, the "***Financing***");

WHEREAS, the obligations in the Loan Facility Agreement are conditioned upon the execution and delivery of this Agreement;

WHEREAS, certain of the Investors (the "***Prior Investors***") are holders of the Company's Series A-1 Preferred Stock (the "***Series A-1 Stock***"), Series B-1 Preferred Stock (the "***Series B-1 Stock***"), Series C-1 Preferred Stock (the "***Series C-1 Stock***") and/or Series D-1 Preferred Stock (the "***Series D-1 Stock***," the Series A-1 Stock, Series B-1 Stock, Series C-1 Stock, Series D-1 Stock and Series E Stock shall be referred to herein collectively as the "***Preferred Stock***");

WHEREAS, the Prior Investors are parties to an Amended and Restated Voting Agreement dated as of April 12, 2007, by and among the Company, the Prior Investors and the Key Holders (the "***Prior Agreement***");

WHEREAS, the parties to such Prior Agreement desire to amend and restate the Prior Agreement and to accept the rights and covenants hereof in lieu of their rights and covenants under the Prior Agreement; and

WHEREAS, in connection with the consummation of the Financing, the Investors and the Key Holders have agreed to provide for the future voting of their shares of the Company's capital stock as set forth below.

Now, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

AGREEMENT

1. VOTING.

1.1 Investor Shares. The Investors each agree to hold all shares of voting capital stock of the Company (including but not limited to all shares of Common Stock issued upon conversion of the Preferred Stock) registered in their respective names or beneficially owned by them as of the date hereof and any and all other securities of the Company legally or beneficially acquired by each of the Investors after the date hereof (hereinafter collectively referred to as the "***Investor Shares***") subject to, and to vote the Investor Shares in accordance with, the provisions of this Agreement.

1.2 Key Holder Shares The Key Holders each agree to hold all shares of voting capital stock of the Company registered in their respective names or beneficially owned by them as of the date hereof and any and all other securities of the Company legally or beneficially acquired by each of the Key Holders after the date hereof (hereinafter collectively referred to as the "***Key Holder Shares***") subject to, and to vote the Key Holder Shares in accordance with, the provisions of this Agreement.

1.3 Election of Directors. On all matters relating to the election of directors of the Company, the Investors agree to vote all Investor Shares held by them and the Key Holders agree to vote all Key Holder Shares held by them (or the holders thereof in either case shall consent pursuant to an action by written consent of the holders of capital stock of the Company) so as to elect members of the Company's Board of Directors as follows:

(a) At each election of directors in which the holders of Series B-1 Stock, voting as a separate class, are entitled to elect five (5) directors of the Company pursuant to the Company's Certificate of Incorporation, as may be amended from time to time (the "***Restated Certificate***"), the Investors shall vote all of their respective Investor Shares so as to elect:

(i) one representative of Alta Partners ("***Alta***") so long as it holds not less than One Million (1,000,000) shares of Series B-1 Stock (as adjusted for stock splits, combinations, dividends and the like), which individual shall initially be Edward Penhoet;

(ii) one representative of Venrock Associates ("***Venrock***") so long as it holds not less than One Million (1,000,000) shares of Series B-1 Stock (as adjusted for stock splits, combinations, dividends and the like), which individual shall initially be Anthony Evnin;

(iii) one representative of Versant Ventures ("***Versant***") so long as it holds not less than One Million (1,000,000) shares of Series B-1 Stock (as adjusted for stock splits, combinations, dividends and the like), which individual shall initially be Bradley J. Bolzon;

(iv) one representative of Biotech Turnaround Fund B.V. ("***BTF***") so long as it holds not less than One Million (1,000,000) shares of Series B-1 Stock (as adjusted for stock splits, combinations, dividends and the like), which individual shall initially be Daan van de Noort; and

(v) one representative of Bay City Capital Fund II, L.P. ("***BCC***") so long as it holds not less than One Million (1,000,000) shares of Series B-1 Stock (as adjusted for stock splits, dividends and the like), which individual shall initially be Carl Goldfischer.

Any vote taken to remove any director elected pursuant to this Section 1.3(a), or to fill any vacancy created by the resignation, removal or death of a director elected pursuant to this Section 1.3(a), shall also be effected in the manner provided in this Section 1.3(a). Upon the request of any party entitled to designate a director as provided in this Section 1.3(a), each Investor agrees to vote its Investor Shares for the removal of such director.

(b) At each election of directors in which the holders of Series D-1 Stock, voting as a separate class, are entitled to elect one (1) director of the Company pursuant to the Restated Certificate, the Investors shall vote all of their respective Investor Shares so as to elect one representative designated by MPM BioEquities Master Fund, LP ("***MPM***") so long as it holds not less than Five Hundred Thousand (500,000) shares of Series D-1 Stock (as adjusted for stock splits, combinations, dividends and the like), which individual shall initially be Kurt von Emster. Any vote taken to remove any director elected pursuant to this Section 1.3(b), or to fill any vacancy created by the resignation, removal or death of a director elected pursuant to this Section 1.3(b), shall also be subject to the provisions of this Section 1.3(b). Upon the request of MPM, each Investor agrees to vote its Investor Shares for the removal of such director, so long as MPM holds the requisite number of shares of Series D-1 Stock as set forth above.

(c) At each election of directors in which the holders of Common Stock, voting as a separate class, are entitled to elect one (1) director of the Company pursuant to the Restated Certificate, the Key Holders and the Investors shall vote all of their respective Key Holder Shares and Investor Shares so as to elect the individual who is then the duly appointed chief executive officer of the Company, which individual shall initially be Harold Van Wart.

Any vote taken to remove any director elected pursuant to this Section 1.3(c), or to fill any vacancy created by the resignation, removal or death of a director elected pursuant to this Section 1.3(c), shall also be subject to the provisions of this Section 1.3(c). In the event that the person serving as the director to be elected as set forth in this Section 1.3(c) ceases to serve as the chief executive officer of the Company, each Key Holder and Investor agrees to vote its Key Holder Shares or Investor Shares, as applicable, for the removal of such director at the request of a majority of the Board of Directors, excluding the director to be removed.

(d) At each election of directors in which the holders of Common Stock and holders of Preferred Stock, voting together as a single class, are entitled to elect directors of the Company, the Key Holders and Investors shall vote all of their respective Key Holder Shares and Investor Shares so as to elect two (2) members who shall be independent board members with relevant industry experience who are acceptable to a majority of the other directors, who shall initially be Robert Zerbe and Louis Lange.

Any vote taken to remove any director elected pursuant to this Section 1.3(d), or to fill any vacancy created by the resignation, removal or death of a director elected pursuant to this Section 1.3(d), shall also be subject to the provisions of this Section 1.3(d).

(e) Aggregation of Stock. For purposes of calculating the number of shares of Series B-1 Stock held by any Investor, all shares of Series B-1 Stock held or acquired by any entities affiliated with, under common control, controlled by or controlling each such Investor shall be aggregated together for the purpose of determining the availability of any rights under Section 1.3(a).

1.4 No Liability for Election of Recommended Director. None of the parties hereto and no officer, director, stockholder, partner, employee or agent of any party makes any representation or warranty as to the fitness or competence of the nominee of any party hereunder to serve on the Board of Directors by virtue of such party's execution of this Agreement or by the act of such party in voting for such nominee pursuant to this Agreement.

1.5 Visitation Rights. The Company shall allow one representative designated by KBC Bank NV ("***KBC***") so long as it, together with its affiliates and related entities under common control, collectively hold not less than Seven Hundred Thousand (700,000) shares of Series B-1 Stock (as adjusted for stock splits, combinations, dividends and the like), to attend all meetings of the Company's Board of Directors in a nonvoting capacity, and in connection therewith, the Company shall give such representative copies of all notices, minutes, consents, board information packages and other materials, financial or otherwise, which the Company provides to its Board of Directors; *provided*, *however*, that the Company reserves the right to exclude such representative from access to any material or meeting or portion thereof if the Company believes upon advice of counsel that such exclusion is reasonably necessary to preserve the attorney-client privilege, or to protect highly confidential information or for other similar reasons, or if a conflict of interest exists. The decision of the Board with respect to the privileged or confidential nature of such information or whether a conflict of interest exists shall be final and binding.

1.6 Legend.

(a) Each stock certificate representing the Key Holder Shares and Investor Shares shall be imprinted with the following restrictive legend (the "***Legend***"):

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO THE TERMS AND CONDITIONS OF A VOTING AGREEMENT WHICH PLACES CERTAIN RESTRICTIONS ON THE VOTING OF THE SHARES REPRESENTED HEREBY. ANY PERSON ACCEPTING ANY INTEREST IN SUCH SHARES SHALL BE DEEMED TO AGREE TO AND SHALL BECOME BOUND BY ALL THE PROVISIONS OF SUCH AGREEMENT. A COPY OF SUCH VOTING AGREEMENT WILL BE FURNISHED TO THE RECORD HOLDER OF THIS CERTIFICATE WITHOUT CHARGE UPON WRITTEN REQUEST TO THE COMPANY AT ITS PRINCIPAL PLACE OF BUSINESS."

(b) The Company agrees that, during the term of this Agreement, it will not remove, and will not permit to be removed (upon registration of transfer, reissuance of otherwise), the Legend from any such certificate and will place or cause to be placed the Legend on any new certificate issued to represent Investor Shares or Key Holders Shares theretofore represented by a certificate carrying the Legend.

1.7 Successors. The provisions of this Agreement shall be binding upon the successors in interest to any of the Key Holder Shares or Investor Shares. The Company shall not permit the transfer of any of the Key Holder Shares or Investor Shares on its books or issue a new certificate representing any of the Key Holder Shares or Investor Shares unless and until the person to whom such security is to be transferred shall have executed a written agreement, substantially in the form of this Agreement, pursuant to which such person becomes a party to this Agreement and agrees to be bound by all the provisions hereof as if such person were a Key Holder or Investor, as applicable.

1.8 Change of Control. In the event that holders of at least (i) sixty-six and two-thirds percent (66 2/3%) of the Series B-1 Stock (voting as a separate class), and (ii) seventy-five percent (75%) of the Series D-1 Stock and Series E Stock (voting together as a single class) (collectively, the "***Requisite Investors***") approve any acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any merger, tender offer, stock sale, stock exchange, reorganization or other business combination) in which the holders of the Company's issued and outstanding voting securities immediately prior to such transaction, do not own or control at least a majority of the combined voting power of the voting securities of the surviving entity (or its parent) in substantially the same proportion as their ownership prior to such transaction (except as provided herein or in connection with an internal restructuring, reorganization or recapitalization of the Company), or any sale, lease or other disposition of all or substantially all of the assets of the Company or the exclusive license of substantially all of the intellectual property of the Company to a third party (each, a "***Sale of the Company***"); *provided*, *however*, that, a Sale of the Company shall not include (x) any consolidation or merger effected exclusively to change the domicile of the Company or (y) any transaction or series of transactions that are principally for bona fide equity financing purposes in which cash is received by the Company or indebtedness of the Company is cancelled or converted or a combination thereof (such approved Sale of the Company, an "***Approved Sale***"), the Key Holders and Investors shall each consent to vote for and raise no objections to the Approved Sale, and (i) if the Approved Sale is structured as a merger or consolidation of the Company, or a sale, lease or other disposition of all or substantially all of the assets of the Company or the exclusive license of substantially all of the intellectual property of the Company to a third party, the Key Holders and Investors shall each waive any dissenters rights, appraisal rights or similar rights in connection with the Approved Sale, or (ii) if the Approved Sale is structured as a sale of the stock of the Company, the Key Holders and Investors shall each agree to sell their Key Holder Shares and Investor Shares on the terms and conditions approved by the Requisite Investors, *provided* such terms do not provide that the Key Holder or Investor would receive less than the relative amount (as compared to other classes of stockholders of the Company) that would be distributed to such Key Holder or Investor in the event the proceeds of the sale of the Company were distributed in accordance with the Company's Certificate of Incorporation as in effect on the date hereof. The Key Holders and the Investors shall each take all necessary and desirable actions approved by the Requisite Holders in connection with the consummation of the Approved Sale, including the execution of such agreements and such instruments and other actions reasonably necessary to (i) provide the representations, warranties, indemnities, covenants, conditions, non-compete agreements (with respect only to the Key Holders), escrow agreements and other provisions and agreements relating to such Approved Sale and (ii) effectuate the allocation and distribution of the aggregate consideration upon the Approved Sale; *provided*, *however*, that (A) no Key Holder or Investor

compelled to take any action contemplated by this Section 1.8 in connection with the Approved Sale shall be required to make any representations or warranties regarding the Company, (B) any indemnification obligation or other contractual liability of any Key Holder or Investor incurred in connection with the Approved Sale shall be apportioned among the stockholders of the Company in proportion to the amount of consideration to be received by each stockholder and, in any event, shall be limited to the amount of consideration, if any, placed in escrow pursuant to such Approved Sale, (C) any such escrow shall be limited in duration to no more than one (1) year following the closing of such Approved Sale, (D) no more than 10% of the aggregate consideration relating to such Approved Sale shall be subject to any such escrow agreement or provision, and (E) any escrowed amounts shall be both withheld from and distributed out of such escrow account *pro rata* in accordance with each stockholder's aggregate proceeds from the Approved Sale.

1.9 Irrevocable Proxy. To secure the Key Holder's and the Investor's obligations to vote the Key Holder Shares and the Investor Shares in accordance with this Agreement, each Key Holder and each Investor hereby grants to a stockholder designated by the Board of Directors an irrevocable proxy to vote all of such Key Holder's Key Holder Shares or such Investor's Investor Shares as set forth in this Agreement and to execute all appropriate instruments consistent with this Agreement on behalf of such Key Holder or Investor if, and only if, such Key Holder or Investor fails to vote all of such Key Holder's Key Holder Shares or such Investor's Investor Shares or execute such other instruments in accordance with the provisions of this Agreement within five (5) business days of the Company's or any other party's written request for such Key Holder's or Investor's written consent or signature. The proxy and power granted by each Key Holder and Investor pursuant to this Section are coupled with an interest and are given to secure the performance of such party's duties under this Agreement. Each such proxy and power will be irrevocable for the term of this Agreement. The proxy and power, so long as any party hereto is an individual, will survive the death, incompetency and disability of such party or any other individual holder of the Key Holder Shares or Investor Shares, as applicable, and, so long as any party hereto is an entity, will survive the merger or reorganization of such party or any other entity holding any Investor Shares or Key Holder Shares.

1.10 Other Rights. Except as provided by this Agreement or any other agreement entered into in connection with the Financing, each Key Holder and Investor shall exercise the full rights of a holder of capital stock of the Company with respect to the Key Holder Shares and the Investor Shares, respectively.

2. TERMINATION.

2.1 This Agreement shall continue in full force and effect from the date hereof through the earliest of the following dates, upon which date it shall terminate in its entirety:

(a) the date of the closing of a firmly underwritten public offering of the Common Stock pursuant to a registration statement filed with the Securities and Exchange Commission, and declared effective under the Securities Act of 1933, as amended, in which the shares of Preferred Stock are converted to Common Stock.

(b) the date of the closing of an Acquisition or Asset Transfer, each as defined in the Company's Amended and Restated Certificate of Incorporation as in effect as of the date hereof, *provided*, that in the case of an Asset Transfer, this Agreement will not terminate until all sale proceeds available for distribution to the stockholders are distributed to such stockholders; or

(c) the date as of which the parties hereto terminate this Agreement by written consent of holders of (i) a majority of Common Stock held by the Key Holders then providing services to the Company as officers, directors, employees or consultants, (ii) at least sixty-six and two-thirds percent (66 2/3%) in interest of the holders of Series B-1 Stock (voting as a separate class), and (iii) at least seventy-five percent (75%) in interest of the holders of Series D-1 Stock and Series E Stock (voting together as a single class).

3. MISCELLANEOUS.

3.1 Ownership. Each Key Holder represents and warrants to the Investors and the Company that (a) such Key Holder now owns the Key Holder Shares, free and clear of liens or encumbrances, and has not, prior to or on the date of this Agreement, executed or delivered any proxy or entered into any other voting agreement or similar arrangement other than one that has expired or terminated prior to the date hereof, and (b) such Key Holder has full power and capacity to execute, deliver and perform this Agreement, which has been duly executed and delivered by, and evidences the valid and binding obligation of, such Key Holder enforceable in accordance with its terms. Each Investor represents and warrants to the Investors and the Company that (x) such Investor now owns, as of the date hereof, the Investor Shares, free and clear of liens or encumbrances (other than those imposed by law), and has not, prior to or on the date of this Agreement, executed or delivered any proxy or entered into any other voting agreement or similar arrangement other than one that has expired or terminated prior to the date hereof, and (x) such Investor has full power and capacity to execute, deliver and perform this Agreement, which has been duly executed and delivered by, and evidences the valid and binding obligation of, such Investor enforceable in accordance with its terms.

3.2 Further Action. If and whenever the Key Holder Shares or Investor Shares are sold, the Key Holders or the Investors, as the case may be, or the personal representative of the Key Holders or the Investors, as the case may be, shall do all things and execute and deliver all documents and make all transfers, and cause any transferee of the Key Holder Shares or Investor Shares to do all things and execute and deliver all documents, as may be necessary to consummate such sale consistent with this Agreement.

3.3 Specific Performance. The parties hereto hereby declare that it is impossible to measure in money the damages that will accrue to a party hereto or to their heirs, personal representatives, or assigns by reason of a failure to perform any of the obligations under this Agreement and agree that the terms of this Agreement shall be specifically enforceable. If any party hereto or his, her or its heirs, personal representatives, or assigns institutes any action or proceeding to specifically enforce the provisions hereof, any person against whom such action or proceeding is brought hereby waives the claim or defense therein that such party or such personal representative has an adequate remedy at law, and such person shall not offer in any such action or proceeding the claim or defense that such remedy at law exists.

3.4 Governing Law. This Agreement shall be governed by and construed under the laws of the State of Delaware as such laws are applied to agreements among Delaware residents entered into and performed entirely within the State of Delaware. The parties agree that any action brought by either party under or in relation to this Agreement, including without limitation to interpret or enforce any provision of this Agreement, shall be brought in, and each party agrees to and does hereby submit to the jurisdiction and venue of, any state or federal court located in the County of San Francisco, California. Each party irrevocably and unconditionally waives any right it may have to a trial by jury in respect of any litigation directly or indirectly arising out of or relating to this Agreement.

3.5 Amendment or Waiver.

(a) This Agreement may be amended or modified (or provisions of this Agreement waived) only upon the written consent of (i) the Company, (ii) holders of a majority in interest of Common Stock held by the Key Holders then providing services to the Company as officers, directors, employees or consultants, (iii) at least sixty-six and two-thirds percent (66 2/3%) in interest of the holders of Series B-1 Stock (voting as a separate class), and (iv) at least seventy-five percent (75%) in interest of the holders of Series D-1 Stock and Series E Stock (voting together as a single class).

(b) Any amendment or waiver so effected shall be binding upon the Company, each of the parties hereto and any assignee of any such party, provided, however, that notwithstanding the foregoing:

(i) Sections 1.3(a)(i) of this Agreement shall not be amended or waived without the written consent of Alta;

(ii) Section 1.3(a)(ii) of this Agreement shall not be amended or waived without the written consent of Venrock;

(iii) Section 1.3(a)(iii) of this Agreement shall not be amended or waived without the written consent of Versant;

(iv) Section 1.3(a)(iv) of this Agreement shall not be amended or waived without the written consent of BTF;

(v) Section 1.3(a)(v) of this Agreement shall not be amended or waived without the written consent of BCC;

(vi) Section 1.3(b) of this Agreement shall not be amended or waived without the written consent of MPM; and

(vii) Section 1.5 of this Agreement shall not be amended or waived without the written consent of KBC;

provided further that such written consent of Alta, Venrock, Versant, BTF, BCC, MPM and/or KBC to amend or waive such applicable section, shall only be required if Alta, Venrock, Versant, BTF, BCC, MPM and/or KBC, as the case may be, maintain the right to nominate a director or observer, as the case may be, pursuant to such section.

3.6 Severability. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

3.7 Successors and Assigns. The provisions hereof shall inure to the benefit of, and be binding upon, the parties hereto and their respective successors, assigns, heirs, executors and administrators and other legal representatives.

3.8 Additional Shares. In the event that subsequent to the date of this Agreement any shares or other securities are issued on, or in exchange for, any of the Key Holder Shares or Investor Shares by reason of any stock dividend, stock split, combination of shares, reclassification or the like, such shares or securities shall be deemed to be Key Holder Shares or Investor Shares, as the case may be, for purposes of this Agreement.

3.9 Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together shall constitute one instrument. Copies of original signature pages sent by facsimile and/or PDF shall have the same effect as signature pages containing original signatures.

3.10 Waiver. No waivers of any breach of this Agreement extended by any party hereto to any other party shall be construed as a waiver of any rights or remedies of any other party hereto or with respect to any subsequent breach.

3.11 Delays or Omissions. It is agreed that no delay or omission to exercise any right, power or remedy accruing to any party, upon any breach, default or noncompliance by another party under this Agreement shall impair any such right, power or remedy, nor shall it be construed to be a waiver of any such breach, default or noncompliance, or any acquiescence therein, or of or in any similar breach, default or noncompliance thereafter occurring. It is further agreed that any waiver, permit, consent or approval of any kind or character on any party's part of any breach, default or noncompliance under this Agreement or any waiver on such party's part of any provisions or conditions of the Agreement must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement by law, or otherwise afforded to any party, shall be cumulative and not alternative.

3.12 Attorney's Fees. In the event that any suit or action is instituted under or in relation to this Agreement, including without limitation to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

3.13 Notices. All notices required in connection with this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be

notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written notification of receipt. All communications to the Investors and the Key Holders shall be sent to the addresses appearing on the books of the Company or at such address as such party may designate by ten (10) days advance written notice to the other parties hereto.

3.14 Entire Agreement. This Agreement and the Exhibits hereto, along with the Purchase Agreement and the other documents delivered pursuant thereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof and no party shall be liable or bound to any other in any manner by any oral or written representations, warranties, covenants and agreements except as specifically set forth herein and therein. Each party expressly represents and warrants that it is not relying on any oral or written representations, warranties, covenants or agreements outside of this Agreement.

3.15 Manner of Voting. The voting of shares pursuant to this Agreement may be effected in person, by proxy, by written consent or in any other manner permitted by applicable law.

3.16 Amendment of Prior Agreement. The Prior Agreement is hereby amended and superseded in its entirety and restated herein. Such amendment and restatement is effective upon the execution of this Agreement by the Company and the parties required for an amendment pursuant to Section 3.5 of the Prior Agreement. Upon such execution, all provisions of, rights granted and covenants made in the Prior Agreement are hereby waived, released and superseded in their entirety by the provisions hereof and shall have no further force or effect.

[THIS SPACE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED VOTING AGREEMENT** as of the date first above written.

COMPANY:

METABOLEX, INC.

By: /s/ Harold Van Wart
Harold Van Wart
President and Chief Executive Officer

ABBOTT LABORATORIES

By: /s/ W.J. Chase

Print Name: W.J. CHASE

Title: VP & TREASURER

AMENDED AND RESTATED VOTING AGREEMENT
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INVESTORS:

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

By: AllianceBernstein ESG Venture Management, L.P., its general partner

By: AllianceBernstein Global Derivatives Corporation, its general partner

By: /s/ Illegible

Print Name:

Title:

AMENDED AND RESTATED VOTING AGREEMENT
SIGNATURE PAGE

INVESTORS:

ALTA BIOPHARMA PARTNERS III, L.P.

By: Alta BioPharma Management III, LLC,

By: /s/ Illegible
Director

ALTA BIOPHARMA PARTNERS III GMBH & CO. BETEILIGUNGS KG

By: Alta BioPharma Management III, LLC

By: /s/ Illegible
Director

ALTA EMBARCADERO BIOPHARMA PARTNERS III, LLC

By: /s/ Illegible
Manager

ALTANA INNOVATIONSFONDS GMBH

By: /s/ Illegible
Name:
Title: Managing Director

AMENDED AND RESTATED VOTING AGREEMENT
SIGNATURE PAGE

BANCA DELLA SVIZZIERA ITALIANA

By: /s/ M. Rinaldi /s/ R. Paglia

Print Name: *M. Rinaldi* R. PAGLIA

Title:

AMENDED AND RESTATED VOTING AGREEMENT
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THE BAY CITY CAPITAL FUND II, L.P.

By: Bay City Capital Management II LLC, its General Partner

By: /s/ Carl Goldfischer
Name: Carl Goldfischer
Title: Manager and Managing Director

THE BAY CITY CAPITAL FUND II, CO-INVESTMENT FUND, L.P.

By: Bay City Capital Management II LLC, its General Partner

By: /s/ Carl Goldfischer
Name: Carl Goldfischer
Title: Manager and Managing Director

BENCH INTERNATIONAL

By: /s/ Stephen J. Williams

Print Name: Stephen J. Williams

Title: President

STEPHEN J. WILLIAMS

/s/ Stephen J. Williams

AMENDED AND RESTATED VOTING AGREEMENT
SIGNATURE PAGE

Stephen J. Bergman Revocable Trust
dated 1/22/99

By: /s/ Stephen Bergman

Print Name: Stephen Bergman

Title: Officer

AMENDED AND RESTATED VOTING AGREEMENT
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BIOTECH TURNAROUND FUND B.V.

By: /s/ D.A. van den Noort
Name: D.A. van den Noort
Title CIO BTF

AMENDED AND RESTATED VOTING AGREEMENT
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BIRCHMERE VENTURES II, L.P.

By: /s/ Gary G. Glausser
Name: GARY G. GLAUSSER
Title PARTNER

AMENDED AND RESTATED VOTING AGREEMENT
SIGNATURE PAGE

CHARTER ENTREPRENEURS FUND IV, L.P.

By: /s/ Illegible

Print Name: _____

Title: _____

CHARTER ADVISORS FUND IV, L.P.

By: /s/ Illegible

Print Name: _____

Title: _____

CHARTER VENTURES

By: /s/ Illegible

Print Name: _____

Title: _____

CHARTER VENTURES II, L.P.

By: /s/ Illegible

Print Name: _____

Title: _____

CHARTER VENTURES IV, L.P.

By: /s/ Illegible

Print Name: _____

Title: _____

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P.
By: J.E. Flynn Capital LLC,
General Partner

By: /s/ Illegible.
Name:
Title:

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: Deerfield Management Company
By: Flynn Management LLC,
General Partner

By: /s/ Illegible
Name:
Title:

JOHNSON & JOHNSON DEVELOPMENT CORPORATION

By: /s/ Asish K. Xavier
Name: ASISH K. XAVIER
Title Vice President, Venture Investments

AMENDED AND RESTATED VOTING AGREEMENT
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THE KRESGE FOUNDATION

By: /s/ Robert J. Manilla
Name: ROBERT J. MANILLA
Title: Chief Investment Officer

AMENDED AND RESTATED VOTING AGREEMENT
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KBC PRIVATE EQUITY NV

By: /s/ Floris Vansina

Print Name: Floris Vansina

Title: Managing Director
KBC Private Equity NV

By: /s/ Ann De Meulenaere

Print Name: Ann De Meulenaere

Title: Legal Advisor
KBC Private Equity NV

KBC PRIVATE EQUITY FUND BIOTECH NV

By: _____

Print Name: _____

Title: _____

By: _____

Print Name: _____

Title: _____

KBC PRIVATE EQUITY NV

By: _____

Print Name: _____

Title: _____

By: _____

Print Name: _____

Title: _____

KBC PRIVATE EQUITY FUND BIOTECH NV

By: /s/ Illegible

Print Name: _____

Title: _____

By: _____

Print Name: _____

Title: _____

KBC EQUITY FUND - BIOTECHNOLOGY

By: /s/ Werner Van Steen

Print Name: WERNER VAN STEEN

Title: CHAIRMAN

By: /s/ Guido Billion

Print Name: GUIDO BILLION

Title: DIRECTOR

KBC EQUITY FUND - PHARMA

By: /s/ Werner Van Steen

Print Name: WERNER VAN STEEN

Title: CHAIRMAN

By: /s/ Guido Billion

Print Name: GUIDO BILLION

Title: DIRECTOR

MERLIN BIOMED PRIVATE EQUITY FUND, L.P.

By: /s/ Illegible
Name:
Title

AMENDED AND RESTATED VOTING AGREEMENT
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MPM BIOEQUITIES MASTER FUND, LP

By: MPM BioEquities GP, L.P., its General Partner

By: /s/ John Vander Vort
Name: JOHN VANDER VORT
Title: MANAGER

AMENDED AND RESTATED VOTING AGREEMENT
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NEXT CHAPTER HOLDINGS LP

By: /s/ Mark R. Pattis

Print Name: Mark R. Pattis

Title: President, Corp GP.

AMENDED AND RESTATED VOTING AGREEMENT
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NORTHCABIN & CO. (NOMINEE FBO ACORN U.S.A.)

By: /s/ Richard Watson

Print Name: Richard Watson

Title: Analyst

AMENDED AND RESTATED VOTING AGREEMENT
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NOVO A/S

By: /s/ Thomas Dyrberg

Print Name: Thomas Dyrberg

Title: Senior Partner

AMENDED AND RESTATED VOTING AGREEMENT
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PICTET FUNDS (LUX)

By: /s/ Michele Berger /s/ Frédéric Fasel
Name: Michele Berger / Frédéric Fasel
Title Directors

AMENDED AND RESTATED VOTING AGREEMENT
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TROUT PARTNERS LLC

By: /s/ Illegible
Name:
Title

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T. ROWE PRICE HEALTH SCIENCES FUND, INC.

By: /s/ Jay S. Markowitz
Name: Jay S. Markowitz
Title Vice President

AMENDED AND RESTATED VOTING AGREEMENT
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VALINCO INVESTMENTS LIMITED

By: /s/ Catharine Lymbery

Print Name: CATHARINE LYMBERY

Title: DIRECTOR

AMENDED AND RESTATED VOTING AGREEMENT
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VANTAGEPOINT CDP PARTNERS, LP.
By: VantagePoint CDP Associates, L.P.
By: VantagePoint CDP Associates, L.L.C.,
its General Partner

By: /s/ Alan E. Salzman
Name: Alan E. Salzman
Title: Managing Member

CDP CAPITAL-TECHNOLOGY VENTURES U.S. FUND 2002 L.P.

By: _____
Name:
Title:

By: _____
Name:
Title:

VANTAGEPOINT CDP PARTNERS, LP.
By: VantagePoint CDP Associates, L.P.
By: VantagePoint CDP Associates, L.L.C.,
its General Partner

By: _____
Name:
Title:

CDP CAPITAL-TECHNOLOGY VENTURES U.S. FUND 2002 L.P.

By: /s/ Michel Lefebvre
Name: Michel Lefebvre
Title: Vice-président, administration
Placements privés

By: /s/ Monique Laliberté
Name: Monique Laliberté
Title: Investment Manager

VENROCK PARTNERS, L.P.

By: Venrock Partners Management, LLC
Its: General Partner

By: /s/ Anthony B. Evnin
Name: Anthony B. Evnin
Title: Member

VENROCK ASSOCIATES IV, L.P.

By: Venrock Management IV, LLC
Its: General Partner

By: /s/ Anthony B. Evnin
Name: Anthony B. Evnin
Title: Member

VENROCK ENTREPRENEURS FUND IV, L.P.

By: VEF Management IV, LLC
Its: General Partner

By: /s/ Anthony B. Evnin
Name: Anthony B. Evnin
Title: Member

VERSANT VENTURE CAPITAL II, L.P.

By: Versant Ventures II, LLC
Its: General Partner

/s/ Bradley J. Bolzon, Ph.D.
Bradley J. Bolzon, Ph.D.
Managing Director

VERSANT SIDE FUND II, L.P.

By: Versant Ventures II, LLC
Its: General Partner

/s/ Bradley J. Bolzon, Ph.D.
Bradley J. Bolzon, Ph.D.
Managing Director

VERSANT AFFILIATES FUND II-A, L.P.

By: Versant Ventures II, LLC
Its: General Partner

/s/ Bradley J. Bolzon, Ph.D.
Bradley J. Bolzon, Ph.D.
Managing Director

LUKE EVNIN

By: /s/ Luke Evnin
Name: LUKE EVNIN
Title:

AMENDED AND RESTATED VOTING AGREEMENT
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THE KONRAD HANS VON EMSTER III AND ELIZABETH F. VON EMSTER REVOCABLE TRUST DATED JANUARY 18, 2005

By: /s/ Kurt von Emster
Name: KURT VON EMSTER
Title: Trustee

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DAYTON C. MISFELDT

By: /s/ Dayton Misfeldt

Print Name: Dayton Misfeldt

Title:

AMENDED AND RESTATED VOTING AGREEMENT
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HAROLD VAN WART

/s/ Harold Van Wart

AMENDED AND RESTATED VOTING AGREEMENT
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KEY HOLDERS:

/s/ Harold Van Wart
Harold Van Wart

Mark Bagnall

Thomas A. Glaze

Jerrold M. Olefsky

Louis Lange

AMENDED AND RESTATED VOTING AGREEMENT
SIGNATURE PAGE

KEY HOLDERS:

Harold Van Wart

Mark Bagnall

Thomas A. Glaze

/s/ Jerrold M. Olefsky
Jerrold M. Olefsky

Louis Lange

AMENDED AND RESTATED VOTING AGREEMENT
SIGNATURE PAGE

KEY HOLDERS:

Harold Van Wart

Mark Bagnall

Thomas A. Glaze

Jerrold M. Olefsky

/s/ Louis Lange
Louis Lange

AMENDED AND RESTATED VOTING AGREEMENT
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EXHIBIT A

LIST OF INVESTORS

NAME AND ADDRESS

ABBOTT LABORATORIES

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

ALTA BIOPHARMA PARTNERS III, L.P.

ALTA EMBARCADERO BIOPHARMA PARTNERS III, LLC

ALTA BIOPHARMA PARTNERS GMBH & CO. BETEILIGUNGS KG

CATHERINE A. BALIN

THE BAY CITY CAPITAL FUND II, L.P.

THE BAY CITY CAPITAL FUND II, CO-INVESTMENT FUND, L.P.

NAME AND ADDRESS

BENCH INTERNATIONAL CONSULTING, LLC

BIOTECH TURNAROUND FUND B.V.

BIRCHMERE VENTURES II, L.P.

BSI SA

VANTAGEPOINT CDP PARTNERS, L.P.

CDP CAPITAL-TECHNOLOGY VENTURES U.S. FUND 2002 L.P.

CHARTER VENTURES ENTREPRENEURS FUND IV, L.P.

CHARTER ADVISORS FUND IV, L.P.

CHARTER VENTURES

NAME AND ADDRESS

CHARTER VENTURES II, L.P.

CHARTER VENTURES IV, L.P.

CIBC WORLD MARKETS CORP.

DEERFIELD SPECIAL SITUATIONS FUND L.P.

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

ALEX FANCELLI

GC & H INVESTMENTS

JOHN HANCOCK LIFE INSURANCE COMPANY

JOHNSON & JOHNSON DEVELOPMENT CORPORATION

NAME AND ADDRESS

KBC PRIVATE EQUITY NV

KBC PRIVATE EQUITY FUND – BIOTECH NV

KBC EQUITY FUND – PHARMA

KBC EQUITY FUND – BIOTECHNOLOGY

NAME AND ADDRESS

LB (SWISS) PRIVATBANK AG, ZURICH

LOMBARD, ODIER & CIE

M&A BANK

MERLIN BIOMED PRIVATE EQUITY FUND, L.P.

MPM BIOEQUITIES MASTER FUND, LP

DAVID MOLOWA

GEORGE DALEY

JASON NUNN

THE KONRAD HANS VON EMSTER III AND ELIZABETH F. VON EMSTER REVOCABLE TRUST DATED JANUARY 18, 2005

KURT WHEELER

NAME AND ADDRESS

LUKE EVNIN

MARY WHEELER

MORANA JOVAN

PAUL WALKER

STEPHEN J. BERGMAN REVOCABLE TRUST DATED 1/22/99

VAUGHN KAILIAN

WILLIAM GREENE

WILLIAM O'LEARY

THE KRESGE FOUNDATION

LEON SMITH

LYSANDER, LLC

MICHAEL KASSEN 2003 GRAT

NEXT CHAPTER HOLDINGS LP

ROPART INVESTMENTS LLC

STEVEN C. TIGHE

THE ELKES FOUNDATION

THE POLLY W GUTH AND JOHN H.J. GUTH CLT #17

THE STUART P. DAVIDSON PROTECTIVE TRUST

NAME AND ADDRESS
UM MULTI-STRATEGY FUND
VICTOR DZAU
ALTANA INNOVATIONSFONDS GMBH
HSBC REPUBLIC BANK (SUISSE) S.A.
VALINCO INVESTMENTS LIMITED
UBS FUND SERVICES (CAYMAN) LTD. REF: DGAM ALTERNATIVE STRATEGY FUND LP
UBS FUND SERVICES (CAYMAN) LTD. REF: DGAM ALTERNATIVE STRATEGY FUND II SPC CELL A
NORTHCABIN AND CO. (NOMINEE F/B/O ACORN U.S.A)
NOVO A/S
PICTET FUNDS – LUX
TRIAXIX TRUST AG ZURICH

NAME AND ADDRESS

TROUT PARTNERS LLC

T. ROWE PRICE HEALTH SCIENCES FUND, INC.

C/O T. ROWE PRICE ASSOCIATES, INC.

HAROLD VAN WART

VENROCK PARTNERS, L.P.

VENROCK ASSOCIATES IV, L.P.

VENROCK ENTREPRENEURS FUND IV, L.P.

VERSANT VENTURE CAPITAL II, L.P.

VERSANT SIDE FUND II, L.P.

VERSANT AFFILIATES FUND II-A, L.P.

URSULA VOLLENWEIDER

NAME AND ADDRESS

WARNER-LAMBERT COMPANY

STEVEN J. WILLIAMS

EXHIBIT B

LIST OF KEY HOLDERS

Name	No. of Shares of Common Stock
Louis Lange	115,000
Thomas Glaze, Trustee	47,500
Jerrold M. Olefsky	45,950
Harold Van Wart	0
Mark Bagnall	0
Total	**208,450**

Exhibit 10.6

BASIC LEASE INFORMATION

LEASE DATE:	February 18, 1992
TENANTS:	Transplantation Technology, Inc., a Delaware Corporation ("TransTech"), and Metabolex, Inc., a California Corporation ("Metabolex")
ADDRESS OF TENANT:	3872-3876 Bay Center Place Hayward, California 94545
LANDLORD:	Spieker-Singleton #87, A limited Partnership
ADDRESS OF LANDLORD:	6000 Stoneridge Mall Road, Suite 270 Pleasanton, CA 94588
Project Description:	A four building 128,700 square foot business park located on Breakwater Avenue, Whitesell Street, and Bay Center Place in Hayward, California and known as Bay Center Business Park, Phase II. The project is outlined in green on Exhibit "A".
Building Description:	A 41,600 square foot building located in Bay Center Business Park, Phase II, in Hayward, California, as outlined in blue on Exhibit "A".
Premises:	12,862 square feet in Building D of Bay Center Business Park, Phase II, more commonly known as 3872-3876 Bay Center Place in Hayward, California as crosshatched in Exhibit "A".
Permitted Uses:	General office, research and development and pilot production of biological technology.
Occupancy Density:	Fifty (50) people
Scheduled Term Commencement Date:	April 1, 1992
Length of Term:	Five (5) years
Rent:	
Base Rent:	See Paragraph 37
Estimated First Year Basic Operating Cost:	$1,544.00 per month
Security Deposit:	$12,000.00
Tenant's Proportionate Share:	30.92% of Building 9.99% of Project

The foregoing Basic Lease Information is incorporated into and made a part of this Lease. Each reference in this Lease to any of the Basic Lease Information shall mean the respective information above and shall be construed to incorporate all of the terms provided under the particular Lease paragraph pertaining to such information. In the event of any conflict between the Basic Lease Information and the Lease, the latter shall control.

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LEASE

THIS LEASE is made as of this 18th day of February, 1992, between Spieker-Singleton #87, A Limited Partnership, (hereinafter called "Landlord") and Transplantation Technology, Inc., A Delaware Corporation ("TransTech") and Metabolex, Inc., A California Corporation ("Metabolex") (hereinafter collectively called "Tenant").

PREMISES

1. Landlord leases to Tenant and Tenant leases from Landlord, upon the terms and conditions hereinafter set forth, those premises (the "Premises") crosshatched on Exhibit "A" and described in the Basic Lease Information. The Premises may be all or part of the building (the "Building") or of the project (the "Project") which may consist of more than one building. The Building and Project are outlined in blue and green respectively on Exhibit "A".

POSSESSION AND LEASE COMMENCEMENT

2. **A.** The Term Commencement Date shall be the earlier of the date on which (1) Tenant takes possession of some or all of the Premises, or (2) the improvements constructed or to be constructed in the Premises shall have been substantially completed in accordance with the plans and specifications described in Paragraph 38 herein whether or not substantial completion of the Building itself shall have occurred. In the event of any dispute as to substantial completion of work performed or required to be performed by Landlord, the certificate of Landlord's architect or general contractor shall be conclusive. Substantial completion shall have occurred notwithstanding a requirement for Landlord to complete punch list items or similar corrective work. Tenant shall, upon demand, execute and deliver to Landlord a letter of acceptance of delivery of the Premises. This Lease shall not commence, however, until the items outlined in Paragraph 38 have been completed. Minor punch list items shall be completed after Lease commencement.

TERM

3. The Term of this Lease shall commence on the Term Commencement Date and continue in full force and effect for the number of months specified as the Length and Term in the Basic Lease Information or until this Lease is terminated as otherwise provided herein. If the Term Commencement Date is a date other than the first day of the calendar month the Term shall be the number of months of the Length of Term in addition to the remainder of the calendar month following the Term Commencement Date.

USE

4. **A.** Tenant shall use the Premises for the Permitted Use and for no other use or purpose without prior written consent of Landlord. No increase in the Occupant Density of the Premises shall be made without the prior written consent of Landlord. Tenant and its employees, customers, visitors, and licensees shall have the nonexclusive right to use, in common with other parties occupying the Buildings or Project, the parking areas and driveways of the Project, subject to such reasonable rules and regulations as Landlord may from time to time prescribe. Tenant shall not use more than thirty-six (36) parking spaces.

B. Tenant shall not permit any odors, smoke, dust, gas, substances, noise or vibrations to emanate from the Premises, nor take any action which would constitute a nuisance or would disturb, obstruct or endanger any other tenants of the Building or Project in which the Premises are situated or unreasonably interfere with their use of their respective premises. Tenant shall not receive, store or otherwise handle any product, material or merchandise which is toxic, harmful, explosive, highly inflammable or combustible except in full compliance with all applicable laws and regulations. Storage outside the Premises of materials, vehicles or any other items Landlord deems objectionable is prohibited without Landlord's prior written consent. Tenant shall not use or allow the Premises to be used for any unlawful purpose, nor shall Tenant cause or maintain or permit any nuisance in, on or about the Premises. Tenant shall not commit or suffer the commission of any waste in, on or about the Premises. Tenant shall not allow any sale by auction upon the Premises, or place any loads upon the floors, walls or ceilings which endanger the structure, or place any liquids in the drainage system of the Building or Project which are prohibited by law from disposal in the public sewer or which could cause damage to the system or contamination to the Project. No waste, materials or refuse shall be dumped upon or permitted to remain outside the Premises except in trash containers placed inside exterior enclosures designated for that purpose by Landlord.

C. Tenant shall not use the Premises or permit anything to be done in or about the Premises which will in any way conflict with any law, statute, ordinance or governmental rule or regulation now in force or which may hereafter be enacted or promulgated. Tenant shall at its sole cost and expense obtain any and all licenses or permits necessary for Tenant's use of the Premises. Tenant shall promptly comply with the requirements of any board of fire underwriters or other similar body now or hereafter constituted relating to or affecting the use or occupancy of the Premises by Tenant other than structural changes or capital expenditures unless required of Tenant by law and caused by Tenant's specific use of the Premises. The judgement of any court of competent jurisdiction or the admission of Tenant in any actions against Tenant, whether Landlord be a party thereto or not, that Tenant has so violated any such law, statute, ordinance, rule, regulation or requirement, shall be conclusive of such violation as between Landlord and Tenant. Tenant shall not do or permit anything to be done in, on or about the Premises or bring or keep anything which will in any way increase the rate of any insurance upon the Premises, Building or Project, or upon any contents therein or cause a cancellation of said insurance or otherwise affect said insurance in any manner. Tenant shall indemnify Landlord and hold Landlord harmless against any loss, expense, damage, attorneys' fees or liability arising out of the failure of Tenant to comply with any applicable law or comply with the requirements as set forth herein.

RULES AND REGULATIONS

5. Tenant and Tenant's agents, employees shall faithfully observe and comply with the reasonable rules and regulations Landlord may from time to time prescribe in writing for the purpose of maintaining the proper care, cleanliness, safety, traffic flow and general order of the Premises or Project. Landlord shall

not be responsible to Tenant for the non-compliance by any other tenant or occupant of the Building or Project with any of the rules and regulations.

RENT

6. Tenant shall pay to Landlord, without demand throughout the term, Rent as specified in the Basic Lease Information, payable in monthly installments in advance on or before the first day of each calendar month, in lawful money of the United States, without deduction or offset whatsoever to Landlord at the address specified in the Basic Lease Information or to such other firm or to such other place as Landlord may from time to time designate in writing. Rent for the first full month of the Term shall be paid by Tenant upon Tenant's execution of this Lease. If the obligation for payment of Rent commences on other than the first day of a month, then Rent shall be prorated and the prorated installment shall be paid on the first day of the calendar month next succeeding the Term Commencement Date.

BASIC OPERATING COSTS

7. **A. Basic Operating Cost.** In addition to the Base Rent required to be paid hereunder, Tenant shall pay as additional Rent, Tenant's Proportionate Share, as defined in the Basic Lease Information, of Basic Operating Cost in the manner set forth below. Basic Operating Cost shall mean all expenses and costs of every kind and nature which Landlord shall pay or become obligated to pay, or would be required to pay if the Project were fully occupied, because of or in connection with the management, maintenance, preservation and operation of the Project and its supporting facilities servicing the Project (determined in accordance with generally accepted accounting principles, consistently applied) including but not limited to the following:

(1) All real estate taxes, possessory interest taxes, business or license taxes or fees, service payment in lieu of such taxes or fees, annual or periodic license or use fees, excises, transit charges, housing fund assessments, open space charge, assessments, levies, fees or charges, general and special, ordinary and extraordinary, unforeseen as well as foreseen, of any kind (including fees "in-lieu" of any such tax or assessment) which are assessed, levied, charged, confirmed, or imposed by any public authority upon the Project, its operations or the rent (or any portion or component thereof), except (a) inheritance or estate taxes imposed upon or assessed against the Project, or any part thereof or interest therein, and (b) taxes computed upon the basis of the net income of Landlord or the owner of any interest therein.

(2) All insurance premiums and costs, including but not limited to, any deductible amounts, premiums and cost of fire, casually and liability coverage, rental abatement and special hazard insurance applicable to the Project and Landlord's personal property used in connection therewith; provided, however, that Landlord may, but shall not be obligated to, carry special hazard insurance covering losses caused by casualty not insured under standard fire and extended coverage insurance.

(3) Repairs, replacements and general maintenance for the Premises, Building and Project (except for those repairs expressly the responsibility of Landlord, those repairs paid for by proceeds of insurance or by Tenant or other third parties, and alterations attributable solely to tenants of the Project other than Tenant) Items typically capitalized by GAAP shall be amortized over their useful life for the purposes of this Paragraph 7 with a 12% imputed interest rate.

(4) All maintenance, janitorial and service agreements and costs of supplies and equipment used in maintaining the Premises, Building and Project and the equipment therein and the adjacent sidewalks, driveways, parking and service areas, including, without limitation, alarm service, window cleaning, elevator maintenance, Building exterior maintenance and landscaping.

(5) Utilities which benefit all or a portion of the Premises.

(6) A management and accounting cost recovery equal to ten percent (10%) of Basic Operating Costs.

In the event that the Project is not fully occupied during any fiscal year of the Term as determined by Landlord, an adjustment shall be made in computing the Basic Operating Cost for such year so that Basic Operating Cost shall be computed as though the building had been one hundred percent (100%) occupied; provided, however, that in no event shall Landlord be entitled to collect in excess of one hundred percent (100%) of the total Basic Operating Cost from all of the tenants in the Project including Tenant. Notwithstanding anything herein to the contrary, Tenant shall not be responsible for more than its prorata share of operating costs as defined on the first page of this Lease regardless of occupancy levels.

All costs and expenses shall be determined in accordance with generally accepted accounting principles which shall be consistently applied. Basic Operating Cost shall not include specific costs incurred for the account of, separately billed to and paid by specific tenants. Notwithstanding anything herein to the contrary, any instance wherein Landlord, in Landlord's reasonable discretion, deems Tenant to be responsible for any amounts greater than its Proportionate Share, Landlord shall have the right to allocate costs in any manner Landlord deems appropriate.

B. Payment of Estimated Basic Operating Cost. "Estimated Basic Operating Cost" for any particular year shall mean Landlord's estimate of the Basic Operating Cost for such fiscal year made prior to commencement of such fiscal year as hereinafter provided. Landlord shall have the right from time to time to revise its fiscal year and interim accounting periods so long as the periods as so revised are reconciled with prior periods in accordance with generally accepted accounting principles applied in a consistent manner. During the last month of each fiscal year during the Term, or as soon thereafter as practicable, Landlord shall give Tenant written notice of the Estimated Basic Operating Cost for ensuing fiscal year. Tenant shall pay Tenant's Proportionate Share of the Estimated Basic Operating Costs with installments of Base Rent for the fiscal year to which the Estimated Basic Operating Cost applies in monthly installments on the first day of each calendar month during such year, in advance. If at any time during the course of the fiscal year, Landlord determines that Basic Operating Cost will apparently vary from the then Estimated Basic Operating Cost by more than ten percent (10%), Landlord may, by written notice to Tenant, revise the Estimated Basic Operating Cost for the balance of such fiscal year and Tenant shall pay Tenant's Proportionate Share of the Estimated Basic Operating Cost as so revised for the balance of the then current fiscal year on the first of each calendar month thereafter.

C. Computation of Basic Operating Cost Adjustment. "Basic Operating Cost Adjustment" shall mean the difference between Estimated Basic Operating Cost and Basic Operating Cost for any fiscal year determined as hereinafter provided. Within one hundred twenty (120) days after the end of each fiscal year, as determined by Landlord, or as soon thereafter as practicable, Landlord shall deliver to Tenant a statement of Basic Operating Cost for the fiscal year just ended accompanied by a computation of Basic Operating Cost Adjustment. If such statement shows that Tenant's payment based upon Estimated Basic Operating Cost is less than Tenant's Proportionate Share of Basic Operating Cost, then Tenant shall pay to Landlord the difference within twenty (20) days after receipt of such statement. If such statement shows that Tenant's payments of Estimated Basic Operating Cost exceed Tenant's Proportionate Share of Basic Operating Costs, then (provided that Tenant is not in default under this Lease for monetary obligations) then Landlord shall pay to Tenant the difference within twenty (20) days of such statement. If, due to default, Landlord withholds payment of the difference then Landlord shall not be able to deduct the withheld amount from any outstanding security deposit. If this Lease has been terminated or the Term hereof has expired prior to the date of such statement, then the Basic Operating Cost Adjustment shall be paid by the appropriate party within twenty (20) days after the date of delivery of the statement. Should this Lease commence or terminate at any time other than the first day of the fiscal year, Tenant's Proportionate Share of the Basic Operating Cost adjustment shall be prorated by reference to the exact number of calendar days during such fiscal year for which Tenant is obligated to pay Base Rent.

D. Net Lease. This shall be a net Lease and Base Rent shall be paid to Landlord absolutely net of all

costs and expenses except as herein provided. The provisions for payment of Basic Operating Cost and the Basic Operating Cost Adjustment are intended to pass on to Tenant and reimburse Landlord for all costs and expenses of the nature described in paragraph 7A incurred in connection with ownership and operation of the Building or Project and such additional facilities now and in subsequent years as may be determined by Landlord to be necessary to the Building or Project.

E. Tenant Audit. Tenant shall have the right, at Tenant's expense and upon not less than five (5) days prior written notice to Landlord, to review at reasonable times, in Landlord's office, Landlord's books and records applicable to Tenant's Lease for purposes of verifying Landlord's calculation of the Basic Operating Cost and Basic Operating Cost Adjustment.

In the event that Tenant shall dispute the amount set forth in any statement provided by Landlord under Paragraph 7B or 7C above, Tenant shall have the right, not later than sixty (60) days following the receipt of such statement and upon condition that Tenant shall first deposit with Landlord the full amount in dispute, to cause Landlord's books and records with respect to such fiscal year to be audited by certified public accountants selected by Tenant and subject to Landlord's reasonable right of approval. The Basic Operating Cost Adjustment shall be appropriately adjusted on the basis of such audit. If such audit discloses a liability for a refund in excess of six percent (6%) of Tenant's Proportionate Share of the Basic Operating Cost Adjustment previously reported, the cost of such audit shall be borne by Landlord;

otherwise the cost of such audit shall be paid by Tenant. If Tenant shall not request an audit in accordance with the provisions of this paragraph 7E within sixty (60) days of receipt of Landlord's statement provided pursuant to paragraph 7B or 7C, such statement shall be final and binding for all purposes hereof. Tenant shall have the right to look back up to five (5) years if an audit determines a discrepancy of more than six percent (6%) in any one year.

INSURANCE AND INDEMNIFICATION

8. **A. Casualty Insurance.** Landlord agrees to maintain insurance insuring the Buildings of the Project of which the Premises are a part, against fire, lightning, extended coverage, vandalism and malicious mischief in an amount not less than eighty percent (80%) of the replacement cost thereof. Such insurance shall be for the sole benefit of Landlord and under its sole control. Landlord shall not be obligated to insure any furniture, equipment, machinery, goods or supplies not covered by this Lease which Tenant may keep or maintain in the premises or any leasehold improvements, additions or alterations which Tenant may make upon the Premises.

B. Liability Insurance. Tenant shall purchase at its own expense and keep in force during this Lease a policy or policies of comprehensive liability insurance, including personal injury and property damage, in the amount of not less than Five Hundred Thousand Dollars ($500,000.00) for property damage and Two Million Dollars ($2,000,000.00) per occurrence for personal injuries or deaths of persons occurring in or about the Premises and Project. Said policies shall (1) name Landlord and, if applicable, its agent, and any party holding an interest to which this Lease may be subordinated as additional insureds, (2) be issued by an insurance company acceptable to Landlord and licensed to do business in the State of California, and (3) provide that said insurance shall not be cancelled unless thirty (30) days prior written notice shall have been given to Landlord. Said policy or policies or certificates thereof shall be delivered to Landlord by Tenant upon commencement of the lease and upon each renewal of said insurance.

C. Indemnification. Landlord shall not be liable to Tenant for any loss or damage to person or property caused by theft, fire, act of God, acts of a public enemy, riot, strike, insurrection, war, court order, requisition or order of governmental body or authority or for any damage or inconvenience which may arise through repair or alteration of any part of the Building or Project or failure to make any such repair except as expressly otherwise provided in Paragraphs 10. Tenant shall indemnify Landlord and hold Landlord harmless from any and all loss, cost, damage, injury or expense arising out of or related to (1) claims of injury to or death of persons or damage to property occurring or resulting directly or indirectly from the use of occupancy of the Premises by Tenant, or from activities of Tenant, its agents, servants, employees or invitees in or about the Premises or Project, (2) claims for work or labor performed, or for materials or supplies furnished to or at the request of Tenant or in connection with performance of any work done for the account of Tenant within the Premises or Project, and (3) claims arising from any breach or default on the part of Tenant in the performance of any covenant contained in this Lease. Such indemnity shall include without limitation the obligation to provide all costs of defense against any such claims including any action or proceeding brought against Landlord. The foregoing indemnity shall not be applicable to claims arising from the active negligence or willful misconduct of Landlord or its agents, servants, employees or invitees. The provisions of this paragraph shall survive the expiration or termination of this Lease with respect to any claims or liability occurring prior to such expiration or termination.

WAIVER OF SUBROGATION

9. To the extent permitted by law and without affecting the coverage provided by insurance required to be maintained hereunder, Landlord and Tenant each waive any right to recover against the other (a) damages for injury to or death of persons, (b) damages to property, (c) damages to the Premises or any part thereof, or (d) claims arising by reason of the foregoing. This provision is intended to waive fully, and for the benefit of each party, any rights and/or claims which might give rise to a right of subrogation on any insurance carrier. The coverage obtained by each party pursuant to this Lease shall include, without limitation, a waiver of subrogation by the carrier which conforms to the revisions of this paragraph.

LANDLORD'S REPAIR AND SERVICES

10. Landlord shall at Landlord's expense maintain the structural soundness of the roof, foundations and exterior walls of the Building in good repair and condition, reasonable wear and tear excepted. The term walls as used herein shall not include windows, glass or plate glass, doors, special store fronts or office entries. The term roof as used herein shall not include skylights, smoke hatches or roof vents. Landlord shall perform on behalf of Tenant and other tenants of the Project the maintenance of the public and common areas of the Project including but not limited to the landscaped areas, parking areas, driveways, the truck staging areas, rail spur areas, fire sprinkler systems, sanitary and storm sewer lines, utility services, electric and telephone equipment servicing the Building(s), exterior lighting, and anything which affects the operation and exterior appearance of the Project in order to keep the Project in good repair and condition, which determination shall be at Landlord's reasonable discretion. Tenant shall reimburse Landlord for all such costs in accordance with Paragraph 7. Any damage caused by or repairs necessitated by any act of Tenant may be repaired by Landlord at Landlord's option and at Tenant's expense. Tenant shall immediately give Landlord written notice of any defect or need of repairs after which Landlord shall have reasonable opportunity to repair same. Landlord's liability with respect to any defects, repairs, or maintenance for which Landlord is responsible under any of the provisions of this Lease shall be limited to the cost of such repairs or maintenance.

TENANTS REPAIRS

11. Tenant shall at Tenant's expense maintain all parts of the Premises in a good clean and secure condition promptly making all necessary repairs and replacements including but not limited to all windows, glass, doors and any special office entries, walls and wall finishes, floor covering, heating, ventilating and air

conditioning systems, truck doors, dock bumpers, dock plates and levelers, roofing, plumbing work and fixtures, downspouts, skylights, smoke hatches and roof vents. Tenant shall at Tenant's expense also perform necessary pest extermination and regular removal of trash and debris. If required by the railroad company, Tenant agrees to sign a joint maintenance agreement governing the use of the rail spur, if any. Tenant shall, at its own expense, enter into a regularly scheduled preventive maintenance/service contract with a maintenance contractor for servicing all hot water, heating and air conditioning systems and equipment within or serving the Premises. The maintenance contractor and the contract must be approved by Landlord. The service contract must include all services suggested by the equipment manufacturer within the operation/maintenance manual and must become effective and a copy thereof delivered to Landlord within thirty (30) days of the Term Commencement Date. Tenant shall not damage any demising wall or disturb the integrity and support provided by any demising wall and shall, at its sole expense, immediately repair any damage to any demising wall caused by Tenant or its employees, agents or invitees.

ALTERATIONS

12. Tenant shall not make, or allow to be made, any alterations or physical additions in, about or to the premises without obtaining the prior written consent of Landlord which consent shall not be unreasonably withheld with respect to proposed alterations and additions which (a) comply with all applicable laws, ordinances, rules and regulations, (b) are in Landlord's opinion compatible with the Project and its mechanical, plumbing, electrical, and heating/ventilation/air conditioning systems, and (c) in Landlord's opinion will not interfere with the use and occupancy of any other portion of the Building or Project by any other tenant or its invitees. Specifically, but without limiting the generality of the foregoing, Landlord shall have the right of consent for all plans and specifications for the proposed alterations or additions, construction means and methods, any contractor or subcontractor to be employed on the work of alterations or additions, and the time for performance of such work. Tenant shall also supply to Landlord any documents and information reasonably requested by Landlord in connection with its consideration of a request for approval hereunder. Tenant must have Landlord's written approval and all appropriate permits and licenses prior to the commencement of said alterations and additions. All alterations and additions permitted hereunder shall be made and performed by Tenant without cost or expense to Landlord including any costs or expenses which Landlord may incur (but not more than $500 per review) in electing to have an outside agency

review said plans and specifications. Landlord shall have the right to require Tenant to remove any or all alterations, additions, improvements and partitions made by Tenant and restore the Premises to their original condition by the termination of this Lease, by lapse of time or otherwise, all at Tenant's expense. All such removals and restoration shall be accomplished in a good workmanlike manner so as not to cause any damage to the Premises or Project whatsoever. If Landlord so elects, such alterations, physical additions or improvements shall become the property of Landlord and surrendered to Landlord upon the termination of this Lease by lapse of time or otherwise; provided, however that this clause shall not apply to trade fixtures or furniture owned by Tenant. In addition to and wholly apart from its obligation to pay Tenant's Proportionate Share of Basic Operating Costs, Tenant shall be responsible for and shall pay prior to delinquency any taxes or governmental service fees, possessory interest taxes, fees or charges in lieu of any such taxes, capital levies, or other chargers imposed upon, levied with respect to or assessed against its personal property, on the value of its alterations, additions or improvements and on its interest pursuant to this Lease. To the extent that any such taxes are not separately assessed or billed to Tenant, Tenant shall pay the amount thereof as invoiced to Tenant by Landlord. Tenant shall be permitted to make non-structural alterations under $10,000 without Landlord's consent provided Premises is returned to original condition at the end of the lease term.

SIGNS **13.** All signs, notices and graphics of every kind or character, visible in or from public view or corridors, the common areas or the exterior of the Premises, shall be subject to Landlord's prior written approval, which Landlord shall have the right to withhold in its absolute and sole discretion. Tenant shall not place or maintain any banners whatsoever or any window decor in or on any exterior window or window fronting upon any common areas or service area or upon any truck doors or man doors without Landlord's prior written approval which Landlord shall have the right to grant or withhold in its absolute and sole discretion. Any installation of signs or graphics on or about the Premises and Project shall be subject to any applicable governmental laws, ordinances, regulations and to any other requirements imposed by Landlord. Tenant shall remove all such signs and graphics by the termination of this Lease. Such installations and removals shall be made in such manner as to avoid injury to or defacement of the Premises, Building or Project and any other improvements contained therein, and Tenant shall repair any injury or defacement including without limitation discoloration caused by such installation or removal. Tenant shall have the right to erect a sign in compliance with the buildings' existing sign program.

INSPECTION/ POSTING NOTICES **14.** After reasonable notice, except in emergencies where no such notice shall be required, Landlord, its agents and representatives, shall have the right to enter the Premises to inspect the same, to perform such work as may be permitted or required hereunder, to make repairs or alterations to the Premises or Project or to other tenant spaces therein, to deal with emergencies, to post such notices as may be permitted or required by law to prevent the perfection of liens against Landlord's interest in the Project or to exhibit the Premises to prospective tenants, purchasers, encumbrances or others, or for any other purpose as Landlord may deem necessary or desirable; provided, however, that Landlord shall not unreasonably interfere with Tenant's business operations. Tenant shall not be entitled to any abatement of Rent by reason of the exercise of any such right of entry unless Tenant cannot conduct business at all because of such entry. Six months prior to the end of the lease, Landlord shall have the right to erect on the Premises and/or Project a suitable sign indicating that the Premises are available for lease. Tenant shall give written notice to Landlord at least thirty (30) days prior to vacating the premises and shall meet with Landlord for a joint inspection of the Premises at the time of vacating. In the event of Tenant's failure to give such notice or participate in such joint inspection, Landlord's inspection at or after Tenant's vacating the Premises shall conclusively be deemed correct for purposes of determining Tenant's responsibility for repairs and restoration.

UTILITIES **15.** Tenant shall pay for all water, gas, heat, air conditioning, light, power, telephone, sewer, sprinkler charges and other utilities and services used on or from the Premises, together with any taxes, penalties, surcharges or the like pertaining thereto, and maintenance charges for utilities and shall furnish all electric light bulbs ballasts and tubes. If any such services are not separately metered to Tenant, Tenant shall pay a reasonable proportion, as determined by Landlord, of all charges jointly serving other premises. Landlord shall not be liable for any damages directly or indirectly resulting from nor shall the Rent or any monies owed Landlord under this Lease herein reserved be abated by reason of (a) the installation, use or interruption of use of any equipment used in connection with the furnishing of any of the foregoing utilities and services, (b) failure to furnish or delay in furnishing any such utilities or services when such failure or delay is caused by acts of God or the elements, labor disturbances of any character, any other accidents or other conditions beyond the reasonable control of Landlord, or (c) the limitation, curtailment, rationing or restriction on use of water, electricity, gas or any other form of energy or any other service or utility whatsoever serving the Premises or Project. Landlord shall be entitled to cooperate voluntarily and in a reasonable manner it the efforts of national, state or local governmental agencies or utility suppliers in reducing energy or other resource consumption provided Tenant's use of Premises is not unreasonably interferred with. The obligation to make services available hereunder shall be subject to the limitations of any such voluntary, reasonable program.

SUBORDINATION **16.** Without the necessity of any additional document being executed by Tenant for the purpose of effecting a subordination, this Lease shall be subject and subordinate at all times to (a) all ground leases or underlying leases which may now exist or hereafter be executed affecting the Premises and/or the land upon which the Premises and Project are situated, or both, and (b) any mortgage or deed of trust which may now exist or be placed upon said Project, land, ground leases or underlying leases, or Landlord's interest or estate in any of said items, which is specified as security. Notwithstanding the foregoing, Landlord shall have the right to subordinate or cause to be subordinated any such ground leases or

underlying leases or any such liens to this Lease. In the event that any ground lease or underlying lease terminates for any reason or any mortgage or deed of trust is foreclosed or a conveyance in lieu of foreclosure is made for any reason, Tenant shall, notwithstanding any subordination, attorn to and become the Tenant of the successor in interest to Landlord at the option of such successor in interest. Tenant shall execute and deliver, upon demand by Landlord and in the form requested by Landlord, any additional documents evidencing the priority of subordination of this Lease with respect to any such ground leases or underlying leases or any such mortgage or deed of trust. Landlord will attempt to obtain a non-disturbance agreement from any subsequent mortgagor.

FINANCIAL STATEMENTS

17. At the request of Landlord, Tenant shall provide to Landlord its current financial statement or other information discussing financial worth which Landlord shall use solely for purposes of this Lease and in connection with the ownership, management and disposition of the property subject hereto. In addition to financial statements, Landlord may request periodic updates on the progress of research and development for the company's products. Landlord will keep all information confidential.

ESTOPPEL CERTIFICATES

18. Tenant agrees from time to time within ten (10) days after request of Landlord, to deliver to Landlord, or Landlord's designee, an estoppel certificate stating that this Lease is in full force and effect, the date to which Rent has been paid, the unexpired portion of this Lease and such other matters pertaining to this Lease as may be reasonably requested by Landlord. Failure by Tenant to execute and deliver such certificate shall constitute an acceptance of the Premises and acknowledgement by Tenant that the statements included are true and correct without exception. Landlord and Tenant intend that any statement delivered pursuant to this paragraph may be relied upon by any mortgagee, beneficiary, purchaser or prospective purchaser of the Project or any interest therein. The parties agree that Tenant's obligation to furnish such estoppel certificates in a timely fashion is a material inducement for Landlord's execution of the Lease. Landlord also agrees to provide Tenant with an estoppel certificate should Tenant so request.

SECURITY DEPOSIT

19. Tenant agrees to deposit with Landlord upon execution of this Lease, a Security Deposit as stated in the Basic Lease Information which sum shall be held by Landlord, without obligation for interest, as security for the performance of Tenant's covenants and obligations under this Lease, it being expressly understood and agreed that such deposit is not an advance rental deposit or a measure of damages incurred by Landlord in case of Tenant's default. Upon the occurrence of any event of default by Tenant, Landlord may, from time to time, without prejudice to any other remedy provided herein or provided by law, use such fund to the extent necessary to make good any arrears of Rent or other payments due to Landlord hereunder, and any other damage, injury, expense or liability caused by such event of default, and Tenant shall pay to Landlord, on demand, the amount so applied in order to restore the Security Deposit to its original amount. Although the Security Deposit shall be deemed the property of Landlord, any remaining balance of such deposit shall be returned by Landlord to Tenant at such time after termination of this Lease that all of the Tenant's obligations under this Lease have been fulfilled.

TENANTS REMEDIES

20. Tenant shall look solely to Landlord's interest in the Project for recovery of any judgement from Landlord. Landlord, or if Landlord is a partnership, its partners whether general or limited, or if it is a corporation, its directors, officers or shareholders, shall never be personally liable for any such judgement. Any lien obtained to enforce any such judgement and any levy of execution thereon shall be subject and subordinate to any lien, mortgage or deed of trust on the Project.

ASSIGNMENT AND SUBLETTING

21. **A.** Tenant shall not assign or sublet the Premises or any part thereof without Landlord's prior written approval except as provided herein. If Tenant desires to assign this Lease or sublet any or all of the Premises, Tenant shall give Landlord written notice ninety (90) days prior to the anticipated effective date of the assignment or sublease. Landlord shall then have a period of thirty (30) days following receipt of such notice to notify Tenant in writing that Landlord elects either (1) to terminate this Lease as to the space so affected as of the date so requested by Tenant or (but only if Landlord has been asked to consent to an assignment or sublease for the remainder of the term of this Lease) (2) to permit Tenant to assign this Lease or sublet such space, subject, however, to Landlord's prior written approval of the proposed assignee or subtenant and of any related documents or agreements associated with the assignment or sublease, such consent not to be unreasonably withheld so long as the use of the Premises by such proposed assignee or subtenant would be a Permitted Use and would not in Landlord's opinion increase Occupant Density of the Project, the proposed assignee or subtenant is of sound financial condition, and the proposed assignment or sublease would not be likely to result in any decrease in Rent. If Landlord should fail to notify Tenant in writing of such election within said period, Landlord shall be deemed to have waived option (1) above, but written approval by Landlord of the proposed assignee or subtenant shall be required. Failure by Landlord to approve a proposed assignee or subtenant shall not cause a termination of this Lease.

B. Any Rent or other consideration realized by Tenant under any such sublease or assignment in excess of the Rent payable hereunder, after amortization of (1) the reasonable cost of any improvements which Tenant has made for the purpose of assigning or subletting all or part of the Premises and (2) reasonable subletting and assignment costs, shall be divided and paid, fifty percent (50%) to Tenant, fifty percent (50%) to Landlord.

C. In any subletting or assignment undertaken by Tenant, Tenant shall diligently seek to obtain the maximum rental amount available in the marketplace for such subletting or assignment.

D. If Tenant is a corporation, a transfer of corporate shares by sale, assignment, bequest, inheritance, operation of law or other disposition (including such a transfer to or by a receiver or trustee in federal or state bankruptcy, insolvency or other proceedings), so as to result in a change in the present control of such corporation or any of its parent corporations by the person or persons owning a majority of said corporate shares, shall constitute an assignment for purposes of this paragraph.

E. If Tenant is a partnership, joint venture or other unincorporated business form, a transfer of the interest of persons, firms or entities responsible for managerial control of Tenant by sale, assignment, bequest, inheritance, or operation of law or other disposition, so as to result in a change in the present control of said entity and/or a change in the identity of the persons responsible for the general credit obligations of said entity shall constitute an assignment for all purposes of this paragraph. Landlord shall not be permitted to terminate this Lease in the event of a merger of one or both of the Tenants with a third party provided the successor organization has equal or better financial strength and equal or better business prospects.

F. No assignment or subletting by Tenant shall relieve Tenant of any obligations under this Lease. Any assignment or subletting which conflicts with the provisions hereof shall be void.

QUIET ENJOYMENT

22. Landlord represents that it has full right and authority to enter into this Lease and that Tenant, upon paying the Rent and performing its other covenants and agreements herein set forth, shall peaceably and quietly have, hold and enjoy the Premises for the Term hereof without hindrance or molestation from Landlord, subject to the terms and provisions of this Lease.

CONDEMNATION

23. **A.** If the whole or any substantial portion of the Project of which the Premises are a part should be taken or condemned for any public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof, and the taking would prevent or materially interfere with the Permitted Use of the Premises, this Lease shall terminate and the Rent shall be abated during the unexpired portion of this Lease, effective when the physical taking of said Premises shall have occurred.

B. If a portion of the Project of which the Premises are a part should be taken or condemned for any public use under any governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof, and this Lease is not terminated as provided in the subparagraph 23A above, this Lease shall not terminate, but the Rent payable hereunder during the unexpired portion of the Lease shall be reduced to such extent as may be fair and reasonable under all of the circumstances.

C. Landlord shall be entitled to any and all payment, income, rent, award, or any interest therein whatsoever which may be paid or made in connection with such taking or conveyance and Tenant shall have no claim against Landlord or otherwise for the value of any unexpired portion of this Lease. Notwithstanding the foregoing paragraph, any compensation specifically awarded Tenant for loss of business, Tenant's personal property, moving cost or loss of goodwill, shall be and remain the property of Tenant.

CASUALTY DAMAGE

24. **A.** If the Premises should be damaged or destroyed by fire, tornado or other casualty, Tenant shall give immediate written notice thereof to Landlord. Within thirty (30) days of such notice, Landlord shall notify Tenant whether in Landlord's opinion such repairs can be made either (1) within ninety (90) days, (2) in more than ninety (90) days but in less than one hundred eighty (180) days, or (3) in more than one hundred eighty (180) days from the date of such notice; Landlord's determination shall be binding on Tenant.

B. If the Premises should be damaged by fire, tornado or other casualty but only to such extent that rebuilding or repairs can in Landlord's estimation be completed within ninety (90) days after the date upon which Landlord is notified by Tenant of such damage, this Lease shall not terminate, and Landlord shall at its sole cost and expense thereupon proceed with reasonable diligence to rebuild and repair the Premises to substantially the condition in which they existed prior to such damage, except that Landlord shall not be required to rebuild, repair or replace any part of the partitions, fixtures, additions and other improvements which may have been placed in, on or about the Premises by Tenant If the Premises are

untenantable in whole or in part following such damage, the Rent payable hereunder during the period in which they are untenantable shall be reduced to such extent as may be fair and reasonable under all of the circumstances.

C. If the Premises should be damaged by fire, tornado or other casualty but only to such extent that rebuilding or repairs can in Landlord's estimation be completed in more than ninety (90) days but in less than one hundred thirty-five (135) days, then Landlord shall have the option of either (1) terminating the Lease effective upon the date of the occurrence of such damage, in which event the Rent shall be abated during the unexpired portion of the Lease, or (2) electing to rebuild or repair the Premises to substantially the condition in which they existed prior to such damage except that Landlord shall not be required to rebuild, repair or replace any part of the partitions, fixtures, additions and other improvements which may have been placed in, on or about the Premises by Tenant. If the Premises are untenantable in whole or in part following such damage, the Rent payable hereunder during the period in which they are untenantable shall be reduced to such extent as may be fair and reasonable under all of the circumstances. In the event that Landlord should fail to complete such repairs and rebuilding within one hundred thirty-five (135) days after the date upon which Landlord is notified by Tenant of such damage, such period of time to be extended for delays caused by the fault or neglect of Tenant or because of acts of God, acts of public agencies, labor disputes, strikes, fires, freight embargoes, rainy or stormy weather, inability to obtain materials, supplies or fuels, or delay of the contractors or subcontractors due to such causes or other contingencies beyond the reasonable control of Landlord, Tenant may at its option terminate this Lease by delivering thirty (30) days prior written notice of termination to Landlord as Tenant's exclusive remedy, whereupon all rights and obligations hereunder shall cease and terminate.

D. If the Premises should be so damaged by fire, tornado, or other casualty that rebuilding or repairs cannot in Landlord's estimation be completed within one hundred thirty-five (135) days after the date upon which Landlord is notified by Tenant of such damage, this Lease shall terminate and the Rent shall be abated during the unexpired portion of this Lease, effective upon the date of the occurrence of such damage.

E. Notwithstanding anything herein to the contrary, in the event that holder of any indebtedness secured by a mortgage or deed of trust covering the Premises requires that the insurance proceeds be applied to such indebtedness, then Landlord shall have the right to terminate this Lease by delivering written notice of termination to Tenant within fifteen (15) days after such requirement is made by any such holder, whereupon all rights and obligations hereunder shall cease and terminate.

F. The provision of Section 1942, Subdivision 2, and Section 1933, Subdivision 4, of the Civil Code of California is superseded by the foregoing.

HOLDING OVER **25.** If Tenant shall retain possession of the Premises or any portion thereof without Landlord's consent following the expiration of the Lease or sooner termination for any reason, then Tenant shall pay to Landlord for each day of such retention double the amount of the daily rental for the first month prior to the date of expiration or termination. Tenant shall also indemnify and hold Landlord harmless from any loss or liability resulting from delay by Tenant in surrendering the Premises, including, without limitation, any claims made by any succeeding tenant founded on such delay. Alternatively, if Landlord gives notice of Landlord's consent to Tenant's holding over, such holding over shall constitute renewal of the Lease on terms mutually agreed to. Acceptance of Rent by Landlord following expiration or termination shall not constitute a renewal of this Lease, and nothing contained in this paragraph shall waive Landlord's right of reentry or any other right. Unless Landlord exercises the option hereby given to it, Tenant shall be only a Tenant at sufferance, whether or not Landlord accepts any Rent from Tenant while Tenant is holding over without Landlord's written consent. Additionally, in the event that upon termination of the Lease, Tenant has not fulfilled its obligation with respect to repairs and cleanup of the Premises or any other Tenant obligations as set forth in this Lease, then Landlord shall have the right to perform any such obligations as it deems necessary at Tenant's sole cost and expense, and any time required by Landlord to complete such obligations shall be considered a period of holding over and the terms of this paragraph shall apply.

DEFAULT **26.** **A. Events of Default.** The occurrence of any of the following shall constitute an event of default on the part of Tenant:

(1) Abandonment. Vacation or abandonment of the premises by both TransTech and Metabolex for a continuous period in excess of five (5) days.

(2) Nonpayment of Rent. Failure to pay any installment of Rent or any other amount due and payable hereunder upon the date when said payment is due, such failure continuing without cure by payment of the delinquent Rent and late charge or other obligations for a period of five (5) days after written notice and demand;

(3) Other Obligations. Failure to perform any obligations, agreement or covenant under this Lease other than those matters specified in subparagraphs (1) and (2) of this subparagraph 26A, such failure continuing for fifteen (15) days after written notice of such failure, or such longer period as Landlord reasonably determines to be necessary to remedy such default, provided that Tenant shall continuously and diligently pursue such remedy at all times until such default is cured.

(4) General Assignment. A general assignment by Tenant for the benefit of creditors.

(5) Bankruptcy. The filing of any voluntary petition in bankruptcy by Tenant, or the filing of an involuntary petition by Tenant's creditors, which involuntary petition remains undischarged for a period of thirty (30) days. In the event that under applicable law the trustee in bankruptcy or Tenant has the right to affirm this Lease and continue to perform the obligation of Tenant hereunder, such trustee or Tenant shall, in such time period as may be permitted by the bankruptcy court having jurisdiction, cure all defaults of Tenant hereunder outstanding as of the date of the affirmance of this Lease and provide to Landlord such adequate assurances as may be necessary to ensure Landlord of the continued performance of Tenant's obligations under this Lease.

(6) Receivership. The employment of a receiver to take possession of substantially all of Tenant's assets of the Premises, if such attachment or other seizure remains undismissed or undischarged for a period of thirty (30) days after the levy thereof.

(7) Attachment. The attachment, execution or other judicial seizure of all or substantially all of Tenant's assets of the Premises, if such attachment or other seizure remains undismissed or undischarged for a period of thirty (30) days after the levy thereof.

B. Remedies Upon Default.

(1) Rent. All failures to pay any monetary obligation to be paid by Tenant under this Lease shall be construed as obligations for payment of Rent.

(2) Termination. In the event of the occurrence of any event of default Landlord shall have the right, with or without notice or demand, to immediately terminate this Lease, and at any time thereafter recover possession of the Premises or any part thereof and expel and remove therefrom Tenant and any other person occupying the same, by any lawful means, and again repossess and enjoy the Premises without prejudice to any of the remedies that Landlord may have under this Lease, or at law or equity by reason of Tenant's default or of such termination.

(3) Continuation After Default. Even though Tenant has breached this Lease and/or abandoned the Premises, this Lease shall continue in effect for so long as Landlord does not terminate Tenant's right to possession under paragraph 26B(2) hereof, and Landlord may enforce all its rights and remedies under this Lease, including but without limitation, the right to recover Rent as it becomes due, and Landlord, without terminating this Lease, may exercise all of the rights and remedies of a Landlord under Section 1951.4 of the Civil Code of the State of California or any successor code section. Acts of maintenance preservation or efforts to lease the Premises or the appointment of a receiver upon application of Landlord to protect Landlord's interest under this Lease shall not constitute an election to terminate Tenant's right to possession.

C. Damages Upon Termination. Should Landlord terminate this Lease pursuant to the provisions of paragraph 26B(2) hereof, Landlord shall have all the rights and remedies of a Landlord provided by Section 1951.2 of the Civil Code of the State of California, or successor code sections. Upon such termination, in addition to any other rights and remedies to which Landlord may be entitled under applicable law, Landlord shall be entitled to recover from Tenant: (1) the worth at the time of award of the unpaid Rent and other amounts which had been earned at the time of termination, (2) the worth at the time of award of the amount by which the unpaid Rent which would have been earned after termination until the time of award exceeds the amount of such Rent loss that the Tenant proves could have been reasonably avoided, (3) the worth at the time of award of the amount by which the unpaid Rent for the balance of the term after the time of award exceeds the amount of such Rent loss that the Tenant proves could be reasonably avoided, and (4) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which, in the ordinary course of things, would be likely to result therefrom. The "worth at the time of award" of the amounts referred to in (1) and (2) above shall be computed with interest at the maximum rate allowed by law. The "worth at the time of award" of the amount referred to in (3) above shall be computed by discounting such amount at the Federal Discount Rate of the Federal Reserve Bank of San Francisco at the time of the award plus one percent (1%).

D. Late Charge. In addition to its other remedies and until termination of this Lease, Landlord shall have the right without notice or demand to add to the amount of any payment required to be made by Tenant hereunder, and which is not paid on or before the date the same is due, an amount equal to a one time ten percent (10%) charge of the delinquency to compensate Landlord for the loss of the use of the amount not paid and the administrative costs caused by the delinquency, the parties agreeing that Landlord's damage by virtue of such delinquencies would be difficult to compute and the amount stated herein represents a reasonable estimate thereof.

E. Remedies Cumulative. All rights, privileges and elections or remedies of the parties are cumulative and not alternative to the extent permitted by law and except as otherwise provided herein.

F. The obligations of TransTech and Metabolex shall be joint and several.

G. Notwithstanding anything herein to the contrary, Tenant shall not be in default of its obligations under this Lease for so long as either TransTech or Metabolex is performing all of the covenants and conditions of this Lease to be performed by Tenant.

LIENS

27. Tenant shall keep the premises free from liens arising out of or related to work performed, materials or supplies furnished or obligations incurred by Tenant or in connection with work made, suffered or done by Tenant in or on the Premises or Project. In the event that Tenant shall not, within ten (10) days following the imposition of any such lien, cause the same to be released of record by payment or posting of a proper bond, Landlord shall have, in addition to all other remedies provided herein and by law, the right, but not the obligation, to cause the same to be released by such means as it shall deem proper, including payment of the claim giving rise to such lien. All sums paid by Landlord on behalf of Tenant and all expenses incurred by Landlord in connection therefore shall be payable to Landlord by Tenant on demand with interest at the maximum rate allowable by law. Landlord shall have the right at all times to post and keep posted on the Premises any notices permitted or required by law, or which Landlord shall deem proper, for the protection of Landlord, the Premises, the Project and any other party having an interest herein, from mechanics' and materialmen's liens, and Tenant shall give Landlord not less than ten (10) business days prior written notice of the commencement of any work in the Premises or Project which could lawfully give rise to a claim for mechanics' or materialmen's lien.

TRANSFERS BY LANDLORD

28. In the event of a sale or conveyance by Landlord of the Project, the same shall operate to release Landlord from any future liability upon any of the covenants or conditions, express or implied, herein contained in favor of Tenant, and in such event Tenant agrees to look solely to the responsibility of the successor in interests of Landlord in and to this Lease. This Lease shall not be affected by any such sale and Tenant agrees to attorn to the purchaser or assignee.

RIGHT OF LANDLORD TO PERFORM TENANTS COVENANTS

29. All covenants and agreements to be performed by Tenant under any of the terms of this Lease shall be performed by Tenant at Tenant's sole cost and expense and without any abatement of Rent. If Tenant shall fail to pay any sum of money, other than Rent, required to be paid by it hereunder or shall fail to perform any other act on its part to be performed hereunder, and such failure shall continue for fifteen (15) days after notice thereof by Landlord or whatever time is reasonably necesary if the work is expected to take longer than fifteen (15) days, Landlord may, but shall not be obligated to do so, and without waiving or releasing Tenant from any obligations of the Tenant, make any such payment or perform any such act on the Tenant's part to be made or performed. All sums so paid by Landlord and all necessary incidental costs together with interest thereon at the maximum rate permitted by law from

the date of such payment by the Landlord shall be payable to Landlord on demand, and Tenant covenants to pay such sums, and Landlord shall have, in addition to any other right or remedy of Landlord, the same right and remedies in the event of the nonpayment thereof by Tenant as in the case of default by Tenant in the payment of the Rent.

WAIVER

30. If either Landlord or Tenant waives the performance of any term, covenant or condition contained in this Lease, such waiver shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant or condition contained herein. The acceptance of Rent by Landlord shall not constitute a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, regardless of Landlord's knowledge of such preceding breach at the time Landlord accepted such Rent. Failure by Landlord to enforce any of the terms, covenants or conditions of this Lease for any length of time shall not be deemed to waive or to decrease the right of Landlord to insist thereafter upon strict performance by Tenant, Waiver of Landlord of any term, covenant or condition contained in this Lease may only be made by a written document signed by Landlord.

NOTICES

31. Each provision of this Lease or of any applicable governmental laws, ordinances, regulations and other requirements with reference to the sending, mailing or delivery of any notice or the making of any payment by Landlord or Tenant to the other shall be deemed to be complied with when and if the following steps are taken:

A. All Rent and other payments required to be made by Tenant to Landlord hereunder shall be payable to Landlord at the address set forth in the Basic Lease Information, or at such other address as Landlord may specify from time to time by written notice delivered in accordance herewith. Tenant's obligation to pay Rent and any other amounts to Landlord under the terms of this Lease shall not be deemed satisfied until such Rent and other amounts have been actually received by Landlord.

B. All notices, demands, consents and approvals which may or are required to be given by either party to the other hereunder shall be in writing and shall be deemed to have been fully given when received by the

United States mail, certified or registered, postage prepaid, and addressed to the party to be notified at the address for such party specified in the Basic Lease Information or to such other place as the party to be notified may from time to time designate by at least fifteen (15) days notice to the notifying party. Tenant appoints as its agent to receive the service of all default notices and notice of commencement of unlawful detainer proceedings the person in charge of or apparently in charge of or occupying the Premises at the time, and, if there is no such person, then such service may be made by attaching the same on the main entrance of the Premises.

ATTORNEYS' FEES

32. In the event either party places the enforcement of this Lease, or any part thereof, or the collection of any Rent due, or to become due hereunder, or recovery of the possession of the Premises in the hands of an attorney or files suit upon the same, the prevailing party shall recover its reasonable attorneys' fees and court costs.

SUCCESSORS AND ASSIGNS

33. This Lease shall be binding upon and inure to the benefit of Landlord, its successors and assigns, and shall be binding upon and inure to the benefit of Tenant, its successors, and to the extent assignment may be approved by Landlord hereunder, Tenant's assigns.

FORCE MAJEURE

34. Whenever a period of time is herein prescribed for action to be taken by Landlord, Landlord shall not be liable or responsible for, and there shall be excluded from the computation for any such period of time, any delays due to strike, riots, acts of God, shortages of labor or materials, war, governmental laws, regulations or restrictions or any other causes of any kind whatsoever which are beyond the control of Landlord. With the exception of monetary obligations under this Lease, Tenant shall not be liable or responsible for, and there shall be excluded from the computation for any such period of time, any delays due to strike, riots, acts of God, shortages of labor or materials, war, governmental laws, regulations or restrictions.

MISCELLANEOUS

35. **A.** The term "Tenant" or any pronoun used in place thereof shall indicate and include the masculine or feminine, the singular or plural number, individuals, firms or corporations, and their and each of their respective successors, executors, administrators and permitted assigns, according to the context hereof.

B. Time is of the essence regarding this Lease and all of its provisions.

C. This Lease shall in all respects be governed by the laws of the State of California.

D. This Lease, together with its exhibits, contains all the agreements of the parties hereto and supersedes any previous negotiations.

E. There have been no representations made by the Landlord or understandings made between the parties other than those set forth in this Lease and its exhibits.

F. This Lease may not be modified except by a written instrument by the parties hereto.

G. If, for any reason whatsoever, any of the provisions hereof shall be unenforceable or ineffective, all of the other provisions shall be and remain in full force and effect.

ADDITIONAL PROVISIONS

36. **BASE RENT.** Monthly base rent shall be as follows:

Month 1	Free of Base Rent	
Months 2-5	$.60/sf/mo NNN	$7,718/month
Months 6-60	$.80/sf/mo NNN	$10,290/month

37. **CONDITION OF PREMISES.** Prior to the commencement date Landlord will, at Landlord's reasonable discretion, fix/replace the tile as needed in the chemistry lab, fix/replace the carpet as needed and repaint office walls as needed. Existing attached casework is to remain along with one (1) fume hood per lab. DI piping from wash room will remain. All casework, piping, fume hoods and trade fixtures will remain the property of Landlord during and after the Lease. Other than this work, Tenant will accept the Premises in "as-is" condition.

38. **SPECIAL USE OF PREMISES.** Landlord acknowledges Tenant's use of animals for testing purposes on the Premises. Tenant will make every reasonable effort to conceal the delivery and disposal of such animals from all surrounding Tenants and will make every possible effort to prevent disturbances of any kind caused by the presence of these animals on the Premises. The use and disposal of such animals will be in accordance with all federal, state and local governmental regulations and reasonably designed to minimize the repercussions of such use upon BayCenter Business Park, Landlord and all other tenants in the park.

39. **FIRST RIGHT OF REFUSAL.** Provided Tenant is not, and has not been, in default of any terms or conditions of this Lease, Tenant shall have a first right of refusal to lease all or any vacant portion of Building D. Upon notification by Landlord of the availability of such space, either orally or in writing, Tenant shall have five (5) business days to notify Landlord of Tenant's desire to exercise Tenant's first right of refusal on the same terms and conditions as Landlord has offered. In the event Tenant chooses not to occupy such space upon its initial availability, Tenant shall have the right of refusal to do so should such space become vacant again during the term of Tenant's lease. If, Tenant exercises its first right of refusal in the manner prescribed, Tenant shall immediately deliver to Landlord payment for the first month's rent and security deposit for the adjacent space (in the same manner as provided for in this Lease), and the lease for the adjacent space shall be consummated without delay in accordance with the

terms and conditions set forth in the lease offer.

40. RENEWAL OPTION. Provided Tenant is not, and has not been, in default of its obligations under this Lease, Tenant shall have an option to release the Premises in "as is" condition for a term of five (5) years at fair market rent for space with a comparably equipped lab. In no event will the monthly rental be less than the rental for the last month of the previous term. Tenant shall give Landlord written notice of its intent to exercise its option at least one hundred eighty (180) days prior to the expiration of the current lease term. At least fifteen (15) days prior to that date, Landlord will have provided Tenant with terms and conditions including rent for the renewal period.

41. LEASE EFFECTIVE DATE. Submission of this instrument for examination or signature by Tenant does not constitute a reservation or option for lease, and it is not effective as a lease or otherwise until execution by Landlord and Tenant.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

"LANDLORD"

Spieker-Singleton #87, A Limited Partnership

BY /s/ Illegible

Its

"TENANT"

Transplantation Technology, Inc., A Delaware Corporation

BY /s/ Illegible

Its President

"TENANT"

METABOLEX, Inc., A California Corporation

BY /s/ Illegible

Its President

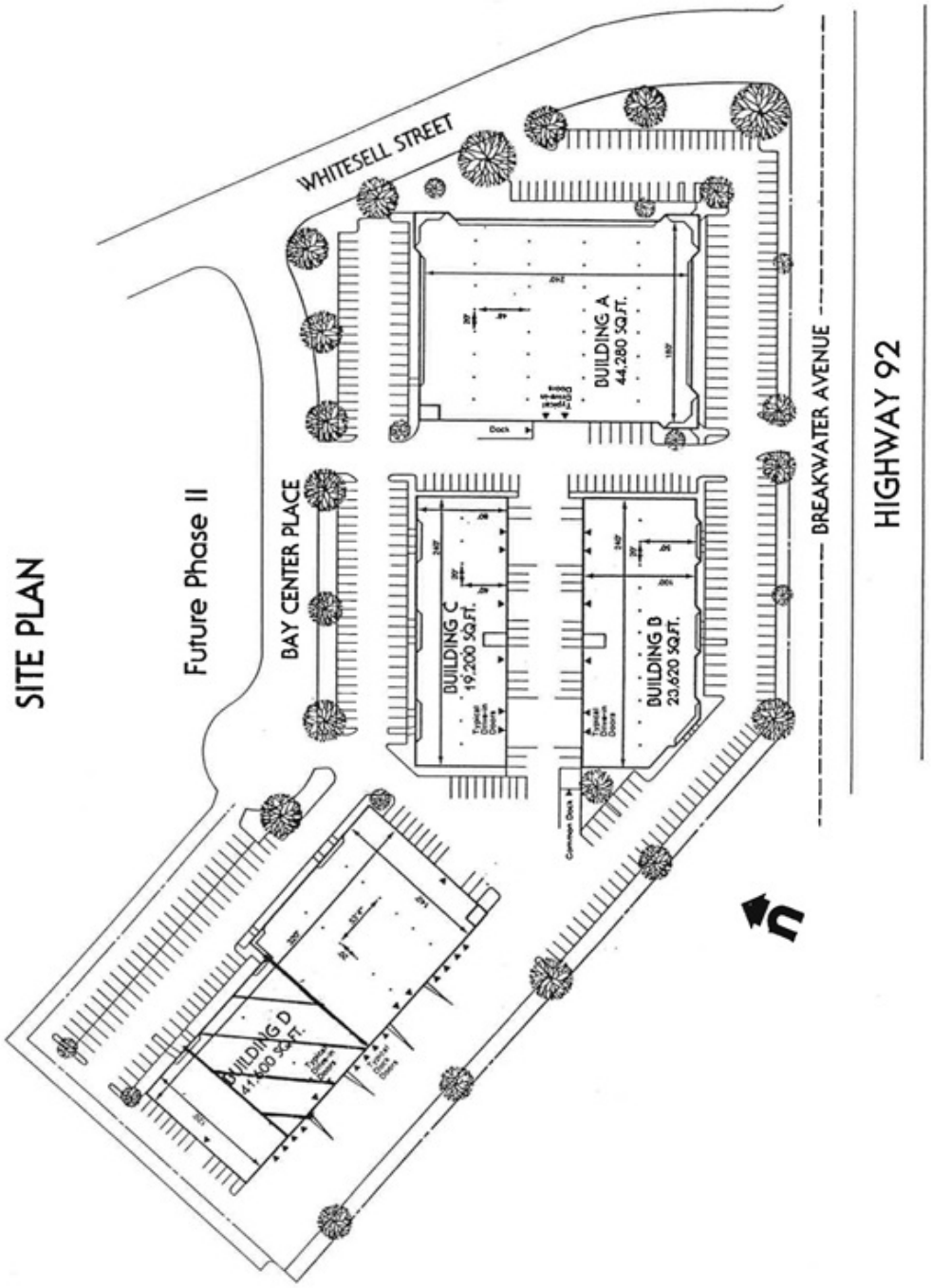

SITE PLAN
Future Phase II
BAY CENTER PLACE
WHITESELL STREET
BREAKWATER AVENUE
HIGHWAY 92
BUILDING A
44,280 SQ.FT.
BUILDING C
19,200 SQ.FT.
BUILDING B
23,620 SQ.FT.
BUILDING D
41,400 SQ.FT.

Exhibit A

Exhibit 10.7

AMENDMENT NUMBER ONE to be attached to and from a part of the Lease (which together with any amendments, modifications and extensions hereto are hereafter called the Lease), made the 18th day of February 1992:

Between: Spieker Properties L.P., a California limited partnership, successor- in-interest to Spieker-Singleton #87, Limited Partnership

And: Metabolex, Inc., a Delaware Corporation

As Tenant

Regarding the Premises known as:

3872-3876 Bay Center Place, Hayward, California 94545

The Lease is hereby amended on the condition that Landlord and Tenant comply with all the provisions of the covenants and agreements contained in the Lease including the following which hereby serve to amend the Lease:

1. Hazardous Material. Tenant shall (i) not cause any "Hazardous Material" (as hereinafter defined) to be released in or about the Premises by Tenant, its agents, employees, contractors or invitees in violation of applicable laws, rules, ordinances and permits. If Tenant breaches the obligations stated in the preceding sentence, then Tenant shall indemnify, defend and hold Landlord harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities or losses which arise during or after the Lease Term or extended term as a direct result of contamination caused by tenant. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any federal, state or local governmental agency or subdivision with jurisdiction over the cleanup. Without limiting the foregoing, if the release of any Hazardous Material on the Premises caused by Tenant results in any contamination on or about the Premises, which is required to be remediated by applicable laws; Tenant shall promptly take all actions at its sole expense as are necessary to return the Premises to the condition required by government agencies with jurisdiction over the cleanup; provided that Landlord's approval of such actions shall first be obtained, which approval shall not be unreasonably withheld. As used herein, the term "Hazardous Material" means any hazardous or toxic substance, material or waste, or any substance material or waste, which is or becomes regulated by any local governmental authority, the State of California or the United States Government. Upon expiration or earlier termination of this Lease, tenant shall duly execute and deliver to Landlord a certificate (the "Hazardous Waste Certificate") in the form on Exhibit A attached hereto. In the event Tenant shall fail to so deliver the Hazardous Waste Certificate, such failure shall,

without further notice or passage of time, constitute a default under the Lease and shall entitle Landlord to retain the entire security deposit held by Landlord, to be applied toward payment of the cost of assessing the presence of Hazardous Material on or about the Premises, and toward payment of all loss, cost, liability damage and expense actually incurred by Landlord arising as a result of such contamination Nothing contained herein shall be deemed or construed to limit the liability of Tenant to Landlord hereunder for the breach of any covenant of Tenant under this Paragraph. The provisions of this Paragraph shall survive the expiration or earlier termination of this Lease and Tenant's surrender of the Premises to Landlord.

IN WITNESS WHEREOF, parties hereto have signed and sealed this Amendment Number One this 8 day of October, 1996.

"LANDLORD"

Spieker Properties, L.P.
a California Limited Partnership

By: Spieker Properties, Inc.
a Maryland Corporation

Its: General Partner

By: /s/ Peter H. Schnugg Date: 10-8-96
Peter H. Schnugg
Senior Vice President

"TENANT:

Metabolex, Inc.
a Delaware Corporation

By: /s/ Illegible

Its: President & CEO Date: Sept 23, 1996

Exhibit 10.8

AMENDMENT NUMBER TWO to be attached to and form a part of the Lease (which together with any amendments, modifications and extensions hereto are hereinafter called the Lease), made the 18th day of February, 1992:

Between: Spieker Properties, L.P., a California Limited Partnership
(Successor in interest to Spieker-Singleton #87, A Limited Partnership)

As Landlord

And: Transplantation Technology, Inc., a Delaware Corporation and
Metabolex, Inc., a California Corporation

As Tenant

Covering the Premises known as: 3872-3876 Bay Center Place
Hayward, California

The Lease is hereby amended on condition that Landlord and Tenant comply with all the provisions of the covenants and agreements contained in the Lease, including the following which hereby serve to amend the Lease:

1. Tenant Name: As a result of Tenant's change in corporate status, Tenant shall hereinafter be referred to as Metabolex, Inc., a Delaware Corporation.

2. Renewal Term: Effective May 1, 1997, the lease term shall be extended an additional three (3) years, and shall expire on April 30, 2000.

3. Base Rent: Effective May 1, 1997, Base Rent for the Existing Premises is provided below;

Months 1-12	$11,319 per month	($.88/sf/mo.)
Months 13-24	$11,576 per month	($.90/sf/mo.)
Months 25-36	$11,833 per month	($.92/sf/mo.)

4. Tenant Improvements: Landlord, at Landlord's sole cost and expense, shall make the following improvements:

- Replace existing carpet in the office area with new 26 ounce level-loop carpet (approximately 425 yards).
- Replace damaged VCT floor covering in the lab and corridor areas (approximately 328 square feet).
- Replace stained ceiling tiles.
- Replace and/or clean light diffusers.

5. Prior Right of Refusal: Provided Tenant is not, and has not been, in default of any terms or conditions under the Lease, Tenant shall have a prior right of refusal to lease any or all vacant space adjacent to the Premises, such space more commonly known as 3868 & 3880 Bay Center Place. Upon notification by Landlord either orally or in writing of the availability of space. Tenant shall have five (5) days to notify Landlord of Tenant's desire to exercise Tenant's prior right of refusal on the terms and conditions offered by Landlord. In the event Tenant fails to give Landlord notice of Tenant's election to lease the adjoining space within the time period, Tenant shall have no further right, title or interest in the adjacent space and the prior right of refusal shall terminate. If, on the other hand, Tenant exercises its prior right of refusal in the manner prescribed, Tenant shall immediately deliver to Landlord payment for the first month's rent for the adjacent space (in the same manner as provided for in the Lease), and the lease for the adjacent space shall be consummated without delay in accordance with the terms and conditions set forth in the lease offer.

6. Renewal Option: Provided Tenant is not, and has not been, in default of its obligations under the Lease. Tenant shall have an option to release the premises in "as in" condition for a term of two (2) years at fair market rent for space with a comparably equipped lab. In no event will the monthly rental be less than the rental for the last month of the previous term. Tenant shall give Landlord written notice of its intent to exercise its option at least one hundred eighty (180) days prior to the expiration of the current lease term. At least fifteen (15) days prior to that date. Landlord will have provided Tenant with terms and conditions including rent for the renewal period.

IN WITNESS WHEREOF, the parties hereto have signed and sealed this Amendment this 20 day of November 1996.

"LANDLORD"

SPIEKER PROPERTIES, L.P.
A CALIFORNIA LIMITED PARTNERSHIP

By: Spieker Properties, Inc.
a Maryland Corporation

Its: General Partner

BY Peter H. Schnugg
Peter H. Schnugg
Senior Vice President

"TENANT"

METABOLEX, INC.
A DELAWARE CORPORATION

By: Thomas A. Glaze

Its: PRESIDENT

Print Name: THOMAS A. GLAZE

Date: NOVEMBER 8, 1996

Exhibit 10.9

AMENDMENT NUMBER THREE to be attached to and form a part of the Lease (which together with any amendments, modifications and extensions hereto are hereinafter called the Lease), made the 18th day of February, 1992:

Between: Spieker Properties, L.P., a California Limited Partnership
(Successor in interest to Spieker-Singleton #87, A Limited Partnership)

As Landlord

And: Metabolex, Inc., a Delaware Corporation

As Tenant

Covering the Premises known as: 3872-3876 Bay Center Place
Hayward, California

The Lease is hereby amended on condition that Landlord and Tenant comply with all the provisions of the covenants and agreements contained in the Lease, including the following which hereby serve to amend the Lease:

1. Term: Effective July 1, 1998, the lease term shall be extended an additional five (5) years, and shall expire on June 30, 2003.

2. Premises: The Premises shall be expanded to include an additional 22,310 square feet, more commonly known as 3860 and 3868 Bay Center Place ("Expansion Premises"), Collectively, the existing premises ("Existing Premises"), known as 3872 Bay Center Place, and the Expansion Premises will total approximately 35,172 square feet and shall be referred to as the Premises (see attached Exhibit "A").

3. Base Rent: Effective July 1, 1998, Base Rent for the Existing Premises and Expansion Premises is provided below:

	Existing Premises	Expansion Premises
Months 1 - 12	$11,576 per month	$12,047 per month
Months 13 - 24	$11,833 per month	$12,494 per month
Months 25 - 36	$12,090 per month	$12,940 per month
Months 37 - 48	$12,348 per month	$13,386 per month
Months 49 - 60	$12,605 per month	$13,832 per month

4. Estimated Basic Operating Cost: Monthly first year Estimated Basic Operating Cost of $4,924 ($.14/sf/mo.)

5. Tenant Improvements: Landlord, at its sole cost and expense, will provide a tenant improvement allowance of $45,000 for Tenant's refurbishment (the "Refurbishment") of the Expansion Premises, The Refurbishment shall reasonably conform to the approved space plan, attached as Exhibit "B". Subject to Paragraph 12 of Tenant's original Lease, Tenant will not be required to restore the Premises upon expiration of the Lease.

6. Occupancy Density: The occupancy density for the Premises shall increase from fifty (50) to one hundred (100) people.

7. Parking: Tenant shall be entitled to Tenant's Proportionate Share of the parking spaces for the Building.

8. Security Deposit: The Security Deposit for the Premises shall increase from twelve thousand ($12,000) dollars to twenty eight thousand ($28,000) dollars.

9. Warranty: Landlord shall warrant the Expansion Premises, including but not limited to the HVAC, electrical and plumbing systems, for a period of thirty (30) days following the Tenant's occupancy of the Expansion Premises, provided any malfunction is not due to Tenant's failure to comply with the Lease and/or due to Tenant's failure to properly maintain the Expansion Premises.

10.	**Tenant's Proportionate Share:**	84.55% of Building 27.33% of Project
11.	**Prior Right of Refusal:**	Provided Tenant is not, and has not been, in default of any terms or conditions under the Lease, Tenant shall have a prior right of refusal to lease any or all vacant space adjacent to the Premises, such space more commonly known as 3880 Bay Center Place. Upon notification by Landlord either orally or in writing of the availability of space, Tenant shall have five (5) days to notify Landlord of Tenant's desire to exercise Tenant's prior right of refusal on the terms and conditions offered by Landlord. In the event Tenant fails to give Landlord notice of Tenant's election to lease the adjoining space within the time period, Tenant shall have no further right, title or interest in the adjacent space and the prior right of refusal shall terminate. If, on the other hand, Tenant exercises its prior right of refusal in the manner prescribed. Tenant shall immediately deliver to Landlord payment for the first month's rent for the adjacent space (in the same manner as provided for in the Lease), and the lease for the adjacent space shall be consummated without delay in accordance with the terms and conditions set forth in the lease offer.
12.	**Renewal Option:**	Provided Tenant is not, and has not been, in default of its obligations under the Lease, Tenant shall have an option to release the premises in "as is" condition for a term of three (3) years at fair market rent for space with a comparably equipped lab. In no event will the monthly rental be less than the rental for the last month of the previous term. Tenant shall give Landlord written notice of its intent to exercise its option at least one hundred eighty (180) days prior to the expiration of the current lease term.

IN WITNESS WHEREOF, the parties hereto have signed and sealed this Amendment this 27 day of May 1998.

"LANDLORD"

SPIEKER PROPERTIES, L.P.
A CALIFORNIA LIMITED PARTNERSHIP

By: Spieker Properties, Inc.
a Maryland Corporation

Its: General Partner

BY: /s/ Peter H. Schnugg
Peter H. Schnugg
Senior Vice President

"TENANT"

METABOLEX, INC.
A DELAWARE CORPORATION

By: /s/ David Pritchard

Its: Vice President & CFO

Print Name: David Pritchard

Date: May 6, 1998

Exhibit 10.10

FOURTH AMENDMENT

THIS FOURTH AMENDMENT (the "Amendment") is made and entered into as of the 29th day of May, 2003, by and between **EOP-INDUSTRIAL PORTFOLIO, L.L.C., a Delaware limited liability company** ("Landlord"), and **METABOLEX, INC., a Delaware corporation** ("Tenant").

RECITALS

A. Landlord (as successor in interest to Spieker Properties, L.P., a California limited partnership, successor in interest to Spieker-Singleton #87, a California limited partnership) and Tenant (as successor in interest to Transplantation Technology, Inc., a Delaware corporation and Metabolex, Inc., a California corporation) are parties to that certain lease dated February 18, 1992 (the "Original Lease"), which Original Lease has been previously amended by that certain Amendment Number One dated October 8, 1996 (the "First Amendment"), that certain Amendment Number Two dated November 20, 1996 (the "Second Amendment") and that certain Amendment Number Three dated May 27, 1998 (the "Third Amendment"). The Original Lease, the First Amendment, the Second Amendment and the Third Amendment are referred to collectively herein as the "Lease". Pursuant to the Lease, Landlord has leased to Tenant space currently containing approximately 35,172 rentable square feet (the "Premises") described as 3872-3876 Bay Center Place located in the building commonly known as Building D (the "Building") in the project commonly known as Bay Center II Business Park, Hayward, California (the "Project").

B. The Lease by its terms shall expire on June 30, 2003 ("Prior Termination Date"), and the parties desire to extend the Term of the Lease, all on the following terms and conditions.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant agree as follows:

I. **Extension**. The Term of the Lease is hereby extended for a period of 84 months and shall expire on June 30, 2010 ("Extended Termination Date"), unless sooner terminated in accordance with the terms of the Lease. That portion of the Term commencing the day immediately following the Prior Termination Date ("Extension Date") and ending on the Extended Termination Date shall be referred to herein as the "Extended Term".

II. **Base Rent**. As of the Extension Date, the schedule of Base Rent payable with respect to the Premises during the Extended Term is the following:

Period	Annual Rate Per Square Foot	Monthly Base Rent
7/01/03-6/30/04	$ 9.54	$27,961.74
7/01/04-6/30/05	$ 9.83	$28,811.73
7/01/05-6/30/06	$ 10.12	$29,661.72
7/01/06-6/30/07	$ 10.42	$30,541.02
7/01/07-6/30/08	$ 10.74	$31,478.94
7/01/08-6/30/09	$ 11.06	$32,416.86
7/01/09-6/30/10	$ 11.39	$33,384.09

All such Base Rent shall be payable by Tenant in accordance with the terms of the Lease.

III. **Additional Security Deposit**. Upon Tenant's execution hereof, Tenant shall pay Landlord the sum of $5,000.00 which is added to and becomes part of the Security Deposit held by Landlord as provided under Paragraph 19 of the Original Lease as security for payment of Rent and the performance of the other terms and conditions of the Lease, as amended hereby, by Tenant. Accordingly, simultaneous with the execution hereof, the Security Deposit is increased from $28,000.00 to **$33,000.00**.

IV. **Basic Operating Cost**. For the period commencing on the Extension Date and ending on the Extended Termination Date, Tenant shall pay for Tenant's Proportionate Share of Basic Operating Cost in accordance with the terms of the Lease, as amended hereby. Tenant's Proportionate Share of the monthly estimated Basic Operating Cost (as more fully described in, and subject to adjustment pursuant to, Paragraph 7 of the Original Lease) for calendar year 2003 is estimated to be **$8,793.00** per month.

V. **Improvements to Premises**.

A. **Condition of Premises**. Tenant is in possession of the Premises and accepts the same "as is" without any agreements, representations, understandings or obligations on the part of Landlord to perform any alterations, repairs or improvements.

B. **Responsibility for Improvements to Premises**. Tenant may perform improvements to the Premises in accordance with the Work Letter attached hereto as Exhibit A and Tenant shall be entitled to an improvement allowance in connection with such work as more fully described in **Exhibit A**.

VI. **Renewal Option**.

A. **Grant of Option; Conditions**. Tenant shall have the right to extend the Extended Term (the "Renewal Option") for one additional period of 5 years commencing on the day following the Extended Termination Date of the Extended Term and ending on the 5th anniversary of the Extended Termination Date (the "Renewal Term"), if:

1. Landlord receives notice of exercise ("Initial Renewal Notice") not less than 9 full calendar months prior to the expiration of the Extended Term and not more than 15 full calendar months prior to the expiration of the Extended Term; and

2. Tenant is not in default under the Lease, as amended hereby, beyond any applicable cure periods at the time that Tenant delivers its Initial Renewal Notice or at the time Tenant delivers its Binding Notice (as defined below); and

3. No part of the Premises is sublet (other than pursuant to a Permitted Transfer, as defined in Section IX.D of this Amendment) at the time that Tenant delivers its Initial Renewal Notice or at the time Tenant delivers its Binding Notice; and

4. The Lease has not been assigned (other than pursuant to a Permitted Transfer, as defined in Section IX.D of this Amendment) prior to the date that Tenant delivers its Initial Renewal Notice or prior to the date Tenant delivers its Binding Notice.

B. **Terms Applicable to Premises During Renewal Term**.

1. The initial Base Rent rate per rentable square foot for the Premises during the Renewal Term shall equal the Prevailing Market (hereinafter defined) rate per rentable square foot for the Premises. Base Rent during the Renewal Term shall increase, if at all, in accordance with the increases assumed in the determination of Prevailing Market rate. Base Rent attributable to the Premises shall be payable in monthly installments in accordance with the terms and conditions of Paragraph 6 of the Original Lease.

2. Tenant shall pay Basic Operating Cost for the Premises during the Renewal Term in accordance with Paragraph 7 of the Original Lease, and the manner and method in which Tenant reimburses Landlord for Tenant's Proportionate Share of Basic Operating Cost shall be a factor considered in determining the Prevailing Market rate for the Renewal Term.

C. **Procedure for Determining Prevailing Market**. Within 30 days after receipt of Tenant's Initial Renewal Notice, Landlord shall advise Tenant of the applicable Base Rent rate for the Premises for the Renewal Term. Tenant, within 15 days after the date on which Landlord advises Tenant of the applicable Base Rent rate for the Renewal Term, shall either (i) give Landlord final binding written notice ("Binding Notice") of Tenant's exercise of its Renewal Option, or (ii) if Tenant disagrees with Landlord's determination, provide Landlord with written notice of rejection (the "Rejection Notice"). If Tenant fails to provide Landlord with either a Binding Notice or Rejection Notice within such 15 day period, Tenant's Renewal Option shall be null and void and of no further force and effect. If Tenant provides Landlord with a Binding Notice, Landlord and Tenant shall enter into the Renewal Amendment (as defined below) upon the terms and conditions set forth

herein. If Tenant provides Landlord with a Rejection Notice, Landlord and Tenant shall work together in good faith to agree upon the Prevailing Market rate for the Premises during the Renewal Term. Upon agreement, Tenant shall provide Landlord with Binding Notice and Landlord and Tenant shall enter into the Renewal Amendment in accordance with the terms and conditions hereof. Notwithstanding the foregoing, if Landlord and Tenant are unable to agree upon the Prevailing Market rate for the Premises within 60 days after the date on which Tenant provides Landlord with a Rejection Notice, Tenant's Renewal Option shall be null and void and of no force and effect.

D. **Renewal Amendment**. If Tenant is entitled to and properly exercises its Renewal Option, Landlord shall prepare an amendment (the "Renewal Amendment") to reflect changes in the Base Rent, Extended Term, Extended Termination Date and other appropriate terms. The Renewal Amendment shall be sent to Tenant within a reasonable time after receipt of the Binding Notice and Tenant shall execute and return the Renewal Amendment to Landlord within 15 days after Tenant's receipt of same, but, upon final determination of the Prevailing Market rate applicable during the Renewal Term as described herein, an otherwise valid exercise of the Renewal Option shall be fully effective whether or not the Renewal Amendment is executed.

E. **Definition of Prevailing Market**. For purposes of this Renewal Option, "Prevailing Market" shall mean the arms length fair market annual rental rate per rentable square foot under renewal leases and amendments entered into on or about the date on which the Prevailing Market is being determined hereunder for space comparable to the Premises in the Project and buildings comparable to the Building in the Hayward industrial area. The determination of Prevailing Market shall take into account any material economic differences between the terms of the Lease, as amended hereby, and any comparison lease or amendment, such as rent abatements, construction costs and other concessions and the manner, if any, in which the landlord under any such lease is reimbursed for operating expenses and taxes. The determination of Prevailing Market shall also take into consideration any reasonably anticipated changes in the Prevailing Market rate from the time such Prevailing Market rate is being determined and the time such Prevailing Market rate will become effective under the Lease, as amended hereby.

VII. **Right of First Offer**.

A. **Grant of Option; Conditions**. Tenant shall have the one time right of first offer (the "Right of First Offer") with respect to the 6,248 rentable square feet known as 3880 Bay Center Place, Hayward, California in the Building as shown on the demising plan attached hereto as **Exhibit B** (the "Offering Space"). Tenant's Right of First Offer shall be exercised as follows: at any time after Landlord has determined that the existing tenant in the Offering Space will not extend or renew the term of its lease for the Offering Space (but prior to leasing such Offering Space to a party other than the existing tenant), Landlord shall advise Tenant (the "Advice") of the terms under which Landlord is prepared to lease the Offering Space to Tenant for the remainder of the Extended Term, which terms shall reflect the Prevailing Market (hereinafter defined) rate for such Offering Space as reasonably determined by Landlord. Tenant may lease such Offering Space in its entirety only, under such terms, by delivering written notice of exercise to Landlord (the "Notice of Exercise") within 10 business days after the date of the Advice, except that Tenant shall have no such Right of First Offer and Landlord need not provide Tenant with an Advice, if:

1. Tenant is in default under the Lease, as amended hereby, beyond any applicable cure periods at the time that Landlord would otherwise deliver the Advice; or
2. the Premises, or any portion thereof, is sublet (other than pursuant to a Permitted Transfer, as defined in Section IX.D of this Amendment) at the time Landlord would otherwise deliver the Advice; or
3. the Lease has been assigned (other than pursuant to a Permitted Transfer, as defined in Section IX.D of this Amendment) prior to the date Landlord would otherwise deliver the Advice; or
4. Tenant is not occupying the Premises on the date Landlord would otherwise deliver the Advice; or

5. the Offering Space is not intended for the exclusive use of Tenant during the Extended Term; or

6. the existing tenant in the Offering Space is interested in extending or renewing its lease for the Offering Space or entering into a new lease for such Offering Space. Notwithstanding the foregoing, if Tenant was entitled to exercise its Right of First Offer, and Landlord and such existing tenant do not extend or renew such tenant's lease of the Offering Space, Tenant shall once again have a Right of First Offer with respect to such Offering Space.

B. **Terms for Offering Space**.

1. The term for the Offering Space shall commence upon the commencement date stated in the Advice and thereupon such Offering Space shall be considered a part of the Premises, provided that all of the terms stated in the Advice shall govern Tenant's leasing of the Offering Space and only to the extent that they do not conflict with the Advice, the terms and conditions of the Lease, as amended hereby, shall apply to the Offering Space.

2. Tenant shall pay Base Rent and Basic Operating Cost for the Offering Space in accordance with the terms and conditions of the Advice, which terms and conditions shall reflect the Prevailing Market rate for the Offering Space as determined in Landlord's reasonable judgment.

3. The Offering Space (including improvements and personalty, if any) shall be accepted by Tenant in its condition and as-built configuration existing on the earlier of the date Tenant takes possession of the Offering Space or as of the date the term for such Offering Space commences, unless the Advice specifies any work to be performed by Landlord in the Offering Space, in which case Landlord shall perform such work in the Offering Space. If Landlord is delayed delivering possession of the Offering Space due to the holdover or unlawful possession of such space by any party, Landlord shall use reasonable efforts to obtain possession of the space, and the commencement of the term for the Offering Space shall be postponed until the date Landlord delivers possession of the Offering Space to Tenant free from occupancy by any party. If Landlord is delayed delivering possession of the Offering Space due to the holdover or unlawful possession of such space by any party 90 days or more beyond the date the term for such Offering Space was to commence, Tenant shall have the right to terminate Tenant's lease of the Offering Space only by delivering 10 days' written notice of such termination to Landlord.

C. **Termination of Right of First Offer**. The rights of Tenant hereunder with respect to the Offering Space shall terminate on the earlier to occur of: (i) June 30, 2010; (ii) Tenant's failure to exercise its Right of First Offer within the 10 business day period provided in Section A above; and (iii) the date Landlord would have provided Tenant an Advice if Tenant had not been in violation of one or more of the conditions set forth in Section A above. If Tenant fails to exercise its Right of First Offer within the 10 business day period provided in Section A above, then, provided that Tenant was not in violation of one or more of the conditions set forth in Section A above, Landlord shall maintain a "relocation of premises" right in every lease with any new tenant for any portion of the Offering Space that it enters into during the Extended Term.

D. **Offering Amendment**. If Tenant exercises its Right of First Offer, Landlord shall prepare an amendment (the "Offering Amendment") adding the Offering Space to the Premises on the terms set forth in the Advice and reflecting the changes in the Base Rent, Rentable Square Footage of the Premises, Tenant's Proportionate Share and other appropriate terms. A copy of the Offering Amendment shall be sent to Tenant within a reasonable time after Landlord's receipt of the Notice of Exercise executed by Tenant, and Tenant shall execute and return the Offering Amendment to Landlord within 15 days thereafter, but an otherwise valid exercise of the Right of First Offer shall be fully effective whether or not the Offering Amendment is executed.

E. **Definition of Prevailing Market**. For purposes of this Right of First Offer provision, "Prevailing Market" shall mean the annual rental rate per square foot for space comparable to the Offering Space in the Project and buildings

comparable to the Building in the Hayward industrial area under leases and renewal and expansion amendments being entered into at or about the time that Prevailing Market is being determined, giving appropriate consideration to tenant concessions, brokerage commissions, tenant improvement allowances, existing improvements in the space in question, and the method of allocating operating expenses and taxes. Notwithstanding the foregoing, space leased under any of the following circumstances shall not be considered to be comparable for purposes hereof: (i) the lease term is for materially less than the lease term of the Offering Space, (ii) the space is not similarly encumbered or unencumbered by the option rights of another tenant, or (iii) the space has a lack of windows and/or an awkward or unusual shape or configuration. The foregoing is not intended to be an exclusive list of space that will not be considered to be comparable.

VIII. **Acceleration Options**.

A. Tenant shall have the right (an "Acceleration Option") to accelerate the Extended Termination Date ("First Acceleration Option"), with respect to the entire Premises only, from June 30, 2010 to an "Accelerated Termination Date" of February 1, 2004 (the "First Accelerated Termination Date"), if:

1. Tenant is not in default under the Lease, as amended hereby, at the date Tenant provides Landlord with the applicable acceleration notice (an "Acceleration Notice"); and

2. no part of the Premises is sublet for a term extending past the First Accelerated Termination Date; and

3. the Lease has not been assigned, other than pursuant to a Permitted Transfer (as defined in Paragraph 21 of the Original Lease, as amended by Section IX.D of this Amendment); and

4. Landlord receives notice of acceleration ("Acceleration Notice") not later than August 1, 2003; and

5 As of the date Tenant provides Landlord with the Acceleration Notice, Tenant shall have failed to close additional financing and/or funding in an effective aggregate amount at least equal to $11,000,000.00 (collectively, the "Requisite Financing"), as evidenced by third-party documentation or such other evidence or documentation reasonably satisfactory to Landlord. Tenant shall use all commercially reasonable efforts to secure the Requisite Financing. Without limiting Landlord's rights pursuant to Paragraph 17 of the Original Lease, Landlord shall have the additional right from time to time during the Extended Term through and including the First Accelerated Termination Date to reasonably request financial statements or any other information evidencing Tenant's financial status and/or the status of Tenant's efforts to secure the Requisite Financing.

B. If Tenant exercises its First Acceleration Option, Tenant, simultaneously with delivery of the applicable Acceleration Notice shall pay to Landlord the sum of $80,000.00 (collectively, the "First Option Acceleration Fee") as an "Acceleration Fee" in connection with the acceleration of the Extended Termination Date pursuant to the First Acceleration Option and not as a penalty, provided that the First Option Acceleration Fee shall be increased by an amount equal to the unamortized portion of any concessions, commissions, allowances or other expenses incurred by Landlord in connection with any additional space leased by Tenant that is subject to acceleration hereunder. Tenant shall remain liable for all Base Rent, Basic Operating Cost and other sums due under the Lease, as amended hereby, up to and including the First Accelerated Termination Date even though billings for such may occur subsequent to the First Accelerated Termination Date.

C. If Tenant does not exercise the First Acceleration Option pursuant to the provisions of Sections A and B above, Tenant shall have the right to accelerate the Extended Termination Date ("Second Acceleration Option"), with respect to the entire Premises only, from June 30, 2010 to May 31, 2008 (the "Second Accelerated Termination Date"), if:

1. Tenant is not in default under the Lease, as amended hereby, at the date Tenant provides Landlord with the applicable Acceleration Notice; and

2. no part of the Premises is sublet for a term extending past the Second Accelerated Termination Date; and

3. the Lease has not been assigned, other than pursuant to a Permitted Transfer (as defined in Paragraph 21 of the Original Lease, as amended by Section IX.D of this Amendment); and

4. Landlord receives an Acceleration Notice not later than August 31, 2007.

D. If Tenant exercises its Second Acceleration Option, Tenant, simultaneously with delivery of the applicable Acceleration Notice shall pay to Landlord the sum of $330,000.00 (the "Second Option Acceleration Fee") as an Acceleration Fee in connection with the acceleration of the Extended Termination Date and not as a penalty, provided that the Second Option Acceleration Fee shall be increased by an amount equal to the unamortized portion of any concessions, commissions, allowances or other expenses incurred by Landlord in connection with any additional space leased by Tenant that is subject to acceleration hereunder. Tenant shall remain liable for all Base Rent, Basic Operating Cost and other sums due under the Lease, as amended hereby, up to and including the Second Accelerated Termination Date even though billings for such may occur subsequent to the Second Accelerated Termination Date.

E. If Tenant, subsequent to providing Landlord with an Acceleration Notice, commits a monetary or material non-monetary default, beyond any applicable notice and cure period, of any of the provisions of the Lease, as amended hereby (including, without limitation, a failure to pay any installment of the First Option Acceleration Fee or the Second Option Acceleration Fee, as applicable, due hereunder), Landlord, at its option, may (i) declare Tenant's exercise of the applicable Acceleration Option to be null and void, and any applicable Acceleration Fee paid to Landlord shall be returned to Tenant, after first applying such applicable Acceleration Fee against any past due Rent under the Lease, as amended hereby, or (ii) continue to honor Tenant's exercise of its applicable Acceleration Option, in which case, Tenant shall remain liable for the payment of the applicable Acceleration Fee and for all Base Rent, Basic Operating Cost and other sums due under the Lease, as amended hereby, up to and including the applicable Accelerated Termination Date even though billings for such may occur subsequent to the applicable Accelerated Termination Date.

F. As of the date Tenant provides Landlord with an Acceleration Notice, any unexercised rights or options of Tenant to renew the Extended Term or to expand the Premises (whether expansion options, rights of first or second refusal, rights of first or second offer, or other similar rights), and any outstanding tenant improvement allowance not claimed and properly utilized by Tenant in accordance with the Lease, as amended hereby, as of such date, shall immediately be deemed terminated and no longer available or of any further force or effect.

IX. **Other Pertinent Provisions**. Landlord and Tenant agree that, effective as of the date of this Amendment, the Lease shall be amended in the following additional respects:

A. **Address of Landlord**. The Address of Landlord set forth in the Basic Lease Information of the Original Lease is hereby deleted in its entirety and replaced with the following:

"ADDRESS OF LANDLORD:

EOP-Industrial Portfolio, L.L.C.
c/o Harvest Properties, Inc.
2200 Powell Street, Suite 210
Emeryville, California 94608
Attention: Property Manager

With a copy to:
Equity Office
Two North Riverside Plaza, Suite 2100
Chicago, Illinois 60606
Attention; Regional Counsel – San Jose Region

And a copy to:
Equity Office Management, L.L.C.
1390 Willow Pass Road, Suite 1020
Concord, California
Attention: MD-PM

Rent shall be made payable to the entity, and sent to the address, Landlord designates and shall be made by good and sufficient check or by other means acceptable to Landlord."

B. **Occupancy Density**. The Occupancy Density set forth in the Basic Lease Information of the Original Lease is hereby modified to be 4 people per 1,000 rentable square feet, subject, however, to the provisions of Paragraph 4 of the Original Lease, including, without limitation, the provisions of Paragraph 4.C of the Original Lease.

C. **Alterations**. Tenant shall not be required to remove any alterations in or about the Premises existing as of the date of this Amendment. Further, Tenant, at the time it requests approval for a proposed alteration or addition to the Premises, may request in writing that Landlord advise Tenant whether the alteration or addition or any portion thereof will be required to be removed and the Premises restored to its original condition. Within 10 days after receipt of Tenant's request, Landlord shall advise Tenant in writing as to which portions of the alteration or addition, if any, will be required to be so removed and the Premises restored to its original condition.

D. **Assignment and Subletting**. Paragraph 21 of the Original Lease is hereby amended to add the following provision:

"G. So long as Tenant is not entering into the Permitted Transfer for the purpose of avoiding or otherwise circumventing the remaining terms of this Paragraph 21, Tenant may assign its entire interest under this Lease, without the consent of Landlord, to (i) an affiliate, subsidiary, or parent of Tenant, or a corporation, partnership or other legal entity wholly owned by Tenant (collectively, an "Affiliated Party"), or (ii) a successor to Tenant by purchase, merger, consolidation or reorganization, provided that all of the following conditions are satisfied (each such Transfer a "Permitted Transfer"): (1) Tenant is not in default under this Lease; (2) the Permitted Use does not allow the Premises to be used for retail purposes; (3) Tenant shall give Landlord written notice at least 10 business days prior to the effective date of the proposed Permitted Transfer (provided that if Tenant is restricted from disclosing any particular information with respect to the proposed Permitted Transfer by any applicable Securities and Exchange Commission requirements, or any applicable Federal or State securities laws (collectively, the "Securities Regulations"), then Tenant's written notice to Landlord shall contain all relevant information regarding the proposed Permitted Transfer to the extent the disclosure of such information is not restricted by the Securities Regulations); (4) with respect to a proposed Permitted Transfer to an Affiliated Party, Tenant continues to have a net worth equal to or greater than Tenant's net worth at the date of this Lease; and (5) with respect to a purchase, merger, consolidation or reorganization or any Permitted Transfer which results in Tenant ceasing to exist as a separate legal entity, (a) Tenant's successor shall own all or substantially all of the assets of Tenant, and (b) Tenant's successor shall have a net worth which is at least equal to the greater of Tenant's net worth at the date of this Lease or Tenant's net worth as of the day prior to the proposed purchase, merger, consolidation or reorganization. Tenant's notice to Landlord shall include information and documentation showing that each of the above conditions has been satisfied. If requested by Landlord, Tenant's successor shall sign a commercially reasonable form of assumption agreement. As used herein, (A) "parent" shall mean a company which owns a majority of Tenant's voting equity; (B) "subsidiary" shall mean an entity wholly owned by Tenant or at least 51% of whose voting equity is owned by Tenant; and (C) "affiliate" shall mean an entity controlled, controlling or under common control with Tenant. Notwithstanding the foregoing, if any parent, affiliate or subsidiary to which this Lease has been assigned or transferred subsequently sells or transfers its voting equity or its interest under this Lease other than to another parent, subsidiary or affiliate of the original Tenant named hereunder, such sale or transfer shall be deemed to be a Transfer requiring the consent of Landlord hereunder."

E. **Remedies Upon Default**. Without limitation of the provisions set forth in Paragraph 26 of the Original Lease, Landlord may employ the remedy described in California Civil Code § 1951.4 (Landlord may continue the Lease in effect after Tenant's breach and abandonment and recover Rent as it becomes due, if Tenant has the right to sublet or assign, subject only to reasonable limitations).

F. **Notices**. Paragraph 31 of the Original Lease is hereby modified to include the phrase "or sent by overnight or same day courier service" after the phrase "certified or registered".

G. **Waivers**. Without limiting the waivers set forth in the Lease, Tenant hereby waives any and all rights under and benefits of subsection 1 of Section 1932, Section 1942 (Repairs and Alterations) and 1932(2) (Casualty) of the California Civil Code, and Section 1265.130 (Condemnation) of the California Code of Civil Procedure, or any similar or successor laws now or hereinafter in effect.

TENANT HEREBY WAIVES ANY AND ALL RIGHTS CONFERRED BY SECTION 3275 OF THE CIVIL CODE OF CALIFORNIA AND BY SECTIONS 1174 (c) AND 1179 OF THE CODE OF CIVIL PROCEDURE OF CALIFORNIA AND ANY AND ALL OTHER LAWS AND RULES OF LAW FROM TIME TO TIME IN EFFECT DURING THE TERM PROVIDING THAT TENANT SHALL HAVE ANY RIGHT TO REDEEM, REINSTATE OR RESTORE THE LEASE FOLLOWING ITS TERMINATION BY REASON OF TENANTS BREACH. TENANT ALSO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE RIGHT TO TRIAL BY JURY IN ANY LITIGATION ARISING OUT OF OR RELATING TO THE LEASE.

H. **Deletions**. The following provisions are hereby deleted in their entireties and are of no further force and effect: Paragraphs 39 (First Right of Refusal) and 40 (Renewal Option) of the Original Lease; Paragraphs 4 (Tenant Improvements), 5 (Prior Right of Refusal) and 6 (Renewal Option) of the Second Amendment; and Paragraphs 5 (Tenant Improvements), 9 (Warranty), 11 (Prior Right of Refusal) and 12 (Renewal Option) of the Third Amendment.

X. **Miscellaneous**.

A. This Amendment, and **Exhibit A** and **Exhibit B** attached hereto, sets forth the entire agreement between the parties with respect to the matters set forth herein. There have been no additional oral or written representations or agreements. Under no circumstances shall Tenant be entitled to any Rent abatement, improvement allowance, leasehold improvements, or other work to the Premises, or any similar economic incentives that may have been provided Tenant in connection with entering into the Lease, unless specifically set forth in this Amendment.

B. Except as herein modified or amended, the provisions, conditions and terms of the Lease shall remain unchanged and in full force and effect.

C. In the case of any inconsistency between the provisions of the Lease and this Amendment, the provisions of this Amendment shall govern and control.

D. Submission of this Amendment by Landlord is not an offer to enter into this Amendment but rather is a solicitation for such an offer by Tenant. Landlord shall not be bound by this Amendment until Landlord has executed and delivered the same to Tenant.

E. The capitalized terms used in this Amendment shall have the same definitions as set forth in the Lease to the extent that such capitalized terms are defined therein and not redefined in this Amendment.

F. Tenant hereby represents to Landlord that Tenant has dealt with no broker in connection with this Amendment other than Cornish & Carey. Tenant agrees to indemnify and hold Landlord, its members, principals, beneficiaries, partners, officers, directors, employees, mortgagee(s) and agents, and the respective principals and members of any such agents (collectively, the "Landlord Related Parties") harmless from all claims of any other brokers claiming to have represented Tenant in connection with this Amendment. Landlord hereby represents to Tenant that Landlord has dealt with no other broker in connection with this Amendment. Landlord agrees to indemnify and hold Tenant, its members, principals, beneficiaries, partners, officers, directors, employees, and agents, and the respective principals and members of any such agents (collectively, the "Tenant Related Parties") harmless from all claims of any brokers claiming to have represented Landlord in connection with this Amendment.

Harvest Properties, Inc., a California corporation ("Harvest") represents only the Landlord in this transaction. Any assistance rendered by any agent or employee

of Harvest in connection with this Agreement or any subsequent amendment or modification hereto has been or will be made as an accommodation to Tenant solely in furtherance of consummating the transaction on behalf of Landlord, and not as agent for Tenant.

G. Each signatory of this Amendment represents hereby that he or she has the authority to execute and deliver the same on behalf of the party hereto for which such signatory is acting.

[SIGNATURES ARE ON FOLLOWING PAGE]

IN WITNESS WHEREOF, Landlord and Tenant have duly executed this Amendment as of the day and year first above written.

LANDLORD:

EOP-INDUSTRIAL PORTFOLIO, L.L.C., a Delaware limited liability company

By: EOP-Operating Limited Partnership, a Delaware limited partnership, its sole member

By: Equity Office Properties Trust, a Maryland real estate investment trust, its general partner

By: /s/ Mark Geisreiter

Name: Mark Geisreiter

Title: Regional Senior Vice President

TENANT:

METABOLEX, INC., a Delaware corporation

By: /s/ Harold Van Wart

Name: HAROLD VAN WART

Title: PRESIDENT and CEO

Exhibit 10.11

FIFTH AMENDMENT TO LEASE

THIS AMENDMENT, dated this 15th day of February, 2005, between RREEF AMERICA REIT II CORP. LLL, a Maryland corporation ("Landlord") and METABOLEX, INC, a Delaware corporation ("Tenant"), for the premises located in the City of Hayward, County of Alameda, State of California, commonly known as 3876 Bay Center Place (the "Premises"), located in the building commonly known as Building D ("the Building") in the project commonly known as Bay Center Business Park II, Hayward, California, ("the Project").

1. RECITALS.

1.1. Landlord's predecessor, Spieker Properties, LP., a California limited partnership, predecessor to Spieker-Singleton #87, a California limited partnership and Tenant's predecessor, Transplantation Technology Inc., a Delaware corporation, entered into that certain Lease dated February 19, 1992 ("the Original Lease"), which Original Lease has been previously amended by that certain First Amendment dated October 8, 1996 (the "First Amendment"), that certain Second Amendment dated November 20, 1996 (the "Second Amendment"), that certain Third Amendment dated May 27, 1998 (the "Third Amendment"), and that certain Fourth Amendment dated May 29, 2003 (the "Fourth Amendment"). The Original Lease, the First Amendment, the Second Amendment, the Third Amendment, and the Fourth Amendment are referred to collectively herein as the "Lease" and attached to this Amendment as Exhibit "1"; and

1.2. Landlord and Tenant express their desire to amend the Lease as more fully set forth below.

1. AMENDMENTS.

1.1. Definitions. Unless otherwise specifically set forth herein, all capitalized terms herein shall have the same meaning as set forth in the Lease.

1.2. Expansion of Premises. Effective on the date Landlord delivers the space to Tenant, the Premises is expanded to include approximately 6,428 square feet of adjacent space at 3880 Bay Center Place, Hayward, California, as depicted on the attached Exhibit "2" (the "Expansion Space"). On delivery of the Expansion Space to Tenant, the Premises will comprise approximately 41,600 square feet.

1.3. Term. The Term for the Expansion Space shall be February 15, 2005 through November 30, 2005.

1.4. Rent Commencement Date. The Rent Commencement Date for the Expansion Space shall be February 15, 2005.

1.5. Base Rent. The Monthly Base Rent for the Expansion Space, shall be $3,856.80 per month through the entire Term, February 15, 2005 through November 30, 2005. This is in addition to the Base Rent for the existing Premises as set forth in the Fourth Amendment to Lease. The new Monthly Base Rent for both the existing premises and the Expansion Space is as follows:

Period	Base Rent	Expansion Rent	Total Rent
02/15/05 – 02/28/05	Paid	$1928.40	$ 1928.40
03/01/05 – 06/30/05	$28,811.73	$3856.80	$32,668.53
07/01/05 – 11/30/05	$29,661.72	$3856.80	$33,518.52

If Tenant continues to occupy the Expansion Space after November 30, 2005, its occupancy shall be on a month-to-month basis at $3,856.80 per month.

1.6. Basic Operating Cost. Commencing on February 2005, with the addition of the Expansion Space, Tenant's Proportionate Share of Basic Operating Cost is as follows: 100% of the Building, 32.32% of the Project. This Proportionate Share shall remain in effect during the time period February 15, 2005 through November 30, 2005, or for as long as Tenant remains in possession of the Expansion Space.

1.7. Condition of Expansion Space. Landlord shall deliver the Expansion Space in its current existing condition.

1.8. Security Deposit. Landlord currently holds Thirty-Three Thousand Dollars ($33,000.00) as security deposit for the Premises. Upon execution of this Amendment, Tenant shall deposit with Landlord an additional Three Thousand Eight Hundred Fifty-Six Dollars and Eighty Cents ($3,856.80) for a total Security Deposit held under this Lease of ($36,856.80).

1.9. Initial Rent Payment. Upon execution of this Amendment, Tenant shall deliver to Landlord the First months prorated rent equal to One Thousand Nine Hundred Twenty Eight Dollars and Forty Cents ($1,928.40).

2. Incorporation. Except as modified herein, all other terms and conditions of the Lease between the parties above described, as attached hereto, shall continue in full force and effect.

2. Limitation of Landlord's Liability. Redress for any claims against Landlord under this Amendment or under the Lease shall only be made against Landlord to the extent of Landlord's interest in the property to which the Premises are a part. The obligations of Landlord under this Amendment and the Lease shall not be personally binding on, nor shall any resort be had to the private properties of, any of its trustees or board of directors and officers, as the case may be, the general partners thereof or any beneficiaries, stockholders, employees or agents of Landlord, or its investment manager.

LANDLORD:	TENANT:
RREEF AMERICA REIT II CORP. LLL, a Maryland corporation	METABOLEX, INC, a Delaware corporation
By: /s/ Illegible	By: /s/ Mark N. K. Bagnall Mark N. K. Bagnall
Title: DISTRICT MANAGER	Title: Chief Business Officer
Date: 3/15/05	Date: February 15, 2005

Exhibit 10.12

SIXTH AMENDMENT TO LEASE

THIS AMENDMENT, dated this 29th day of September, 2006, between RREEF AMERICA REIT II CORP. LLL, a Maryland corporation ("Landlord") and METABOLEX, INC, a Delaware corporation ("Tenant"), for the premises located in the City of Hayward, County of Alameda, State of California, commonly known as 3876 Bay Center Place (the "Premises"), located in the building commonly known as Building D ("the Building") in the project commonly known as Bay Center Business Park II, Hayward, California, ("the Project").

1. RECITALS.

1.1. Landlord's predecessor, Spieker Properties, LP., a California limited partnership, predecessor to Spieker-Singleton #87, a California limited partnership and Tenant's predecessor, Transplantation Technology Inc., a Delaware corporation, entered into that certain Lease dated February 19, 1992 ("the Original Lease"), which Original Lease has been previously amended by that certain First Amendment dated October 8, 1996 (the "First Amendment"), that certain Second Amendment dated November 20, 1996 (the "Second Amendment"), that certain Third Amendment dated May 27, 1998 (the "Third Amendment"), that certain Fourth Amendment dated May 29, 2003 (the "Fourth Amendment") and that certain Fifth Amendment dated February 15, 2005. The Original Lease, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment and the Fifth Amendment are referred to collectively herein as the "Lease"; and

1.2. Landlord and Tenant express their desire to amend the Lease as more fully set forth below.

2. AMENDMENTS.

2.1. Definitions. Unless otherwise specifically set forth herein, all capitalized terms herein shall have the same meaning as set forth in the Lease.

2.2. Expansion of Premises/Delivery of Expansion Space. Effective upon the date Landlord delivers the space to Tenant, the Premises is expanded to include approximately 6,428 square feet of adjacent space at 3880 Bay Center Place, Hayward, California, as depicted on the attached Exhibit "A-1" (the "Expansion Space"). Upon delivery of the Expansion Space to Tenant, the Premises will comprise approximately 41,600 square feet. Landlord agrees to deliver the Expansion Space to Tenant on or prior to October 15, 2006.

2.3. Term. The Term for the Expansion Space shall be three years (3) years, eight (8) months and fifteen (15) days commencing on October 15, 2006 and ending June 30, 2010.

2.4. Rent Commencement Date. The Rent Commencement Date for the Expansion Space shall be October 15, 2006.

2.5. Base Rent. The Monthly Base Rent for the Expansion Space shall be $4,178.20 per month through October 14, 2007 and increasing annually thereafter as outlined on the table below. This is in addition to the Base Rent for the existing Premises as set forth in the Fourth Amendment. The Monthly Base Rent for the Expansion Space is as follows:

Period	Annual Rent	Monthly Installment of Rent
10/15/2006 – 10/14/2007	$50,138.40	$ 4,178.20
10/15/2007 – 10/14/2008	$51,893.24	$ 4,324.44
10/15/2008 – 10/14/2009	$53,709.51	$ 4,475.79
10/15/2009 – 06/30/2010	$55,589.34	$ 4,632.45

2.6. Condition of Expansion Space. Landlord at its sole cost and expense shall install mini blinds on the windows of the space. Landlord shall also deliver the Premises' systems in good repair and working order (HVAC, electrical, lights, roll up doors). Landlord to provide Tenant with a Tenant Improvement allowance of $3.00 per square foot of the Expansion Space ($19,284.00).

2.7. Tenant's Proportionate Share. Commencing on October 15, 2006, Tenant's Proportionate Share of the Building shall be 100% and Tenant's Proportionate Share of the Project shall be 32.32%.

2.8. Security Deposit. Landlord currently holds $36,856.80 as Security Deposit under the Lease. Upon execution of this Amendment, Tenant shall deposit with Landlord an additional $4,963.20 for a total Security Deposit held under the Lease of $41,820.00.

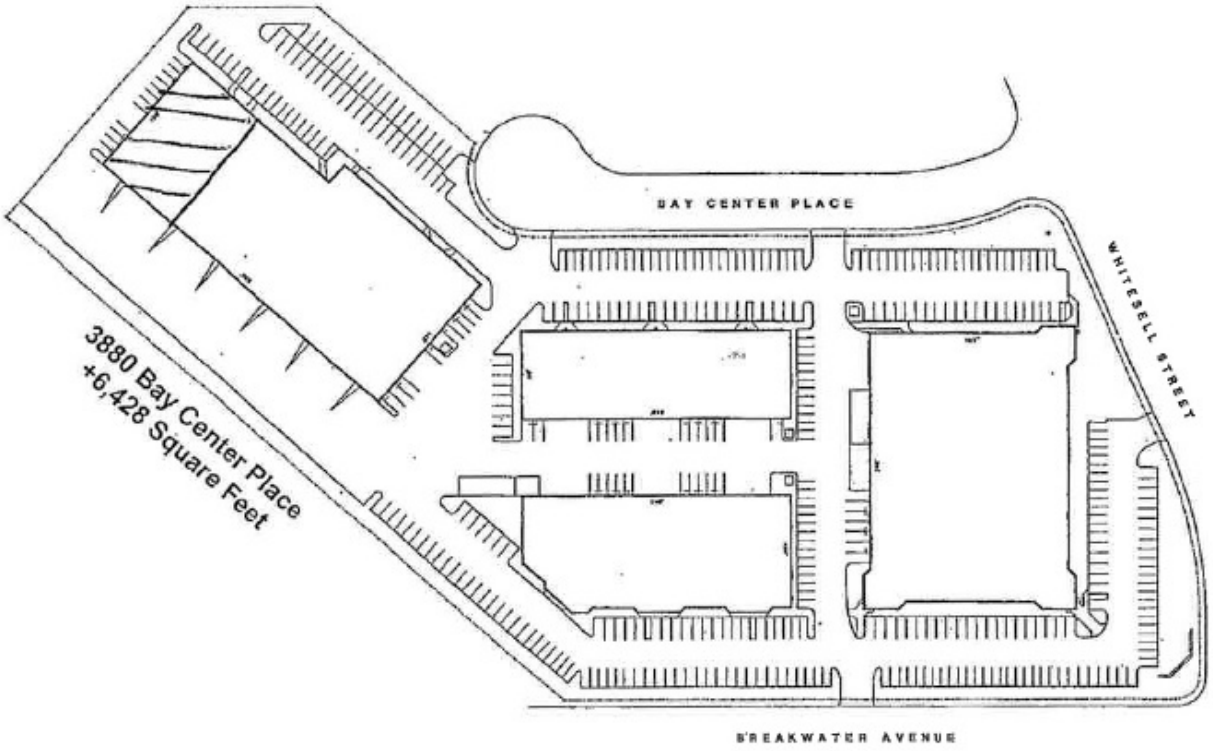
3. Incorporation. Except as modified herein, all other terms and conditions of the Lease between the parties above described shall continue in full force and effect.

4. Limitation of Landlord's Liability. Redress for any claims against Landlord under this Amendment or under the Lease shall only be made against Landlord to the extent of Landlord's interest in the property to which the Premises are a part. The obligations of Landlord under this Amendment and the Lease shall not be personally binding on, nor shall any resort be had to the private properties of, any of its trustees or board of directors and officers, as the case may be, the general partners thereof or any beneficiaries, stockholders, employees or agents of Landlord, or its investment manager.

LANDLORD:	TENANT:
RREEF AMERICA REIT II CORP. LLL, a Maryland corporation	METABOLEX, INC, a Delaware corporation
By: /s/ John D. Baruh John D. Baruh	By:
Title: District Manager	Title: /s/ Harold Van Wart
Date: Nov 3 2006	Date: 23 Oct 06
	By:
	Title: /s/ Illegible
	Date: 10/24/06

EXHIBIT A-1 SITE PLAN

Attached to and made a part of the 6th Amendment to Lease dated September 29, 2006 Between RREEF America REIT II Corp. LLL, a Maryland Corporation, as Landlord and Metabolex, Inc., a Delaware Corporation, as Tenant



BAY CENTER BUSINESS PARK II

HAYWARD CALIFORNIA

RREEF

Exhibit 10.13

SEVENTH AMENDMENT

THIS SEVENTH AMENDMENT (this "**Amendment**") is made and entered into as of July 15, 2010, by and between **NORTHERN CALIFORNIA INDUSTRIAL PORTFOLIO, INC.**, a **Maryland corporation** ("**Landlord**"), and **METABOLEX, INC.**, a **Delaware corporation** ("**Tenant**").

RECITALS

A. Landlord's predecessor, Spieker Properties, LP., a California limited partnership, predecessor to Spieker-Singleton #87, a California limited partnership, as "Landlord", and Metabolex, Inc., a California corporation, and Transplantation Technology Inc., a Delaware corporation, collectively as "Tenant", entered into that certain Lease dated February 18, 1992 (the "**Original Lease**"), which Original Lease has been previously amended by that certain First Amendment dated October 8, 1996 (the "**First Amendment**"), that certain Second Amendment dated November 20, 1996 (the "**Second Amendment**"), that certain Third Amendment dated May 27, 1998 (the "**Third Amendment**"), that certain Fourth Amendment dated May 29, 2003 (the "**Fourth Amendment**"), that certain Fifth Amendment dated February 15, 2005 (the "**Fifth Amendment**"), and that certain Sixth Amendment dated September 29, 2006 (the "**Sixth Amendment**"). The Original Lease, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment and the Sixth Amendment are referred to collectively herein as the "**Lease**". Pursuant to the Lease, Landlord has leased to Tenant space currently containing approximately 41,600 rentable square feet (the "**Premises**") located in the City of Hayward, County of Alameda, State of California, commonly known as 3876 Bay Center Place, located in the building commonly known as Building D (the "**Building**") in the project commonly known as Bay Center Business Park 11, Hayward, California (the "**Project**").

B. The Lease by its terms expired June 30, 2010 ("**Prior Termination Date**"), and the parties desire to extend the Term of the Lease, all on the following terms and conditions.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant agree as follows:

1. **Extension.** The Term of the Lease is hereby extended for a period of forty-six (46) months and shall expire on April 30, 2014 ("**Extended Termination Date**"), unless sooner terminated in accordance with the terms of the Lease. That portion of the Term commencing the day immediately following the Prior Termination Date ("**Extension Date**") and ending on the Extended Termination Date shall be referred to herein as the "**Extended Term**".

2. **Monthly Base Rent and Annual Base Rent.** Effective retroactively as of the Extension Date, the schedule of monthly Base Rent and annual Base Rent payable with respect to the Premises during the Extended Term is the following:

For 3876 Bay Center Place:

Period		Rentable Square Footage	Annual Base Rent Per Square Foot	Annual Base Rent	Monthly Installment of Rent
from	through				
7/1/2010*	9/30/2011	35,172	$ 5.10	$179,377.20	$14,948.10
10/1/2011	6/30/2012	35,172	$ 10.20	$358,754.40	$29,896.20
7/1/2012	6/30/3013	35,172	$ 10.51	$369,517.03	$30,793.09
7/1/2013	4/30/2014	35,172	$ 10.82	$380,602.54	$31,716.88

For 3880 Bay Center Place:

Period		Rentable Square	Annual Base Rent Per Square	Annual Base	Monthly Installment
from	through	Footage	Foot	Rent	of Rent
7/1/2010*	9/30/2011	6,428	$ 3.48	$22,369.44	$1,864.12
10/1/2011	6/30/2012	6,428	$ 6.96	$44,738.88	$3,728.24
7/1/2012	6/30/3013	6,428	$ 7.17	$46,081.05	$3,840.09
7/1/2013	4/30/2014	6,428	$ 7.38	$47,463.48	$3,955.29

* Monthly Base Rent for the full calendar months of July, 2010, through November, 2010, inclusive, is subject to abatement in accordance with this Section.

All such monthly Base Rent and annual Base Rent shall be payable by Tenant in accordance with the terms of the Lease, as amended hereby.

Notwithstanding anything in the Lease to the contrary, so long as Tenant is not in default under the Lease, Tenant shall be entitled to an abatement of monthly Base Rent with respect to the Premises, as originally described in the Lease, in the amount of $16,812.22 per month for the full calendar months of July, 2010, through November, 2010, inclusive. The maximum total amount of monthly Base Rent abated with respect to the Premises in accordance with the foregoing shall equal $84,061.10 (the "Abated Monthly Base Rent"). If Tenant defaults under the Lease at any time during the Term and fails to cure such default within any applicable cure period under the Lease, then all Abated Monthly Base Rent shall immediately become due and payable. Only monthly Base Rent shall be abated pursuant to this Section, as more particularly described herein, and, and all other rent and other costs and charges specified in the Lease shall remain as due and payable pursuant to the provisions of the Lease.

Additional Security Deposit. No additional Security Deposit shall be required in connection with this Amendment.

Basic Operating Costs. For the period commencing on the Extension Date and ending on the Extended Termination Date, Tenant shall pay for all additional rent payable under the Lease, including Tenant's Proportionate Share of Basic Operating Costs, in accordance with the terms of the Lease.

5. **Improvements to Premises.**

5.1 **Condition of Premises.** Tenant is in possession of the Premises and accepts the same "as is" without any agreements, representations, understandings or obligations on the part of Landlord to perform any alterations, repairs or improvements, except as may be expressly provided otherwise in this Amendment.

5.2 **Responsibility for Improvements to Premises.** Any construction, alterations or improvements to the Premises shall be performed by Tenant at its sole cost and expense using contractors selected by Tenant and approved by Landlord and shall be governed in all respects by the provisions of Paragraph 12 of the Original Lease.

6. **Other Pertinent Provisions.** Landlord and Tenant agree that, effective as of the date of this Amendment (unless different effective date(s) is/are specifically referenced in this Section), the Lease shall be amended in the following additional respects:

6.1 **Landlord's Notice Address.** Landlord's Notice Address set forth in the Basic Lease Information of the Original Lease is hereby deleted and replaced by the following:

"Northern California Industrial Portfolio, Inc.
c/o RREEF
2185 North California Boulevard, Suite 285
Walnut Creek, California 94596
Attn: Asset Manager"

6.2 **Landlord's Remittance Address.** Landlord's Remittance Address set forth in the Basic Lease Information of the Original Lease is hereby deleted and replaced with the following:

"Northern California Industrial Portfolio, Inc., DBA Port of Oakland Business Center,
Dept. 2061
P.O. Box 39000
San Francisco, California 94139"

6.3 **Assignment and Subletting.** Upon any request to assign or sublet, Tenant will pay to Landlord a fee in the amount of $2,000.00 plus, on demand, a sum equal to all of Landlord's costs, including reasonable attorney's fees, incurred in investigating and considering any proposed or purported assignment or pledge of the Lease or sublease of any of the Premises, regardless of whether Landlord shall consent to, refuse consent, or determine that Landlord's consent is not required for, such assignment, pledge or sublease.

6.4 **Landlord Work.** The parties hereby acknowledge and agree that Landlord has fulfilled all of its obligations pursuant to Paragraph 37 of the Original Lease, Exhibit A to the Fourth Amendment, Section 2.6 of the Sixth Amendment, and any other provision of the Lease obligating Landlord to perform any work of improvement in or for the Premises on or before the date hereof.

6.5 **Waivers.** Notwithstanding anything to the contrary contained in the Lease, Tenant hereby waives the provisions of Sections 1950.7, 1941 and 1942 of the California Civil Code, or any similar or successor laws now or hereinafter in effect.

6.6 **Deletions.** The following provisions are hereby deleted in their entireties and are of no further force or effect: Section VI, Section VII, and Section VIII of the Fourth Amendment.

6.7 **Option to Renew.** Provided the Lease is in full force and effect and Tenant is not in default under any of the other terms and conditions of the Lease at the time of notification or commencement, Tenant shall have one (1) option to renew (the "Renewal Option") the Lease for a term of two (2) years (the "Renewal Term"), for the portion of the Premises being leased by Tenant as of the date the Renewal Term is to commence, on the same terms and conditions set forth in the Lease, except as modified by the terms, covenants and conditions as set forth below:

6.7.1 If Tenant elects to exercise the Renewal Option, then Tenant shall provide Landlord with written notice no earlier than the date which is nine (9) months prior to the expiration of the Term of the Lease but no later than the date which is six (6) months prior to the expiration of the Term of the Lease. If Tenant fails to provide such notice, Tenant shall have no further or additional right to extend or renew the Term of the Lease.

6.7.2 The annual Base Rent and monthly Base Rent in effect at the expiration of the Term of the Lease shall be increased to reflect the Prevailing Market (defined below) rate. Landlord shall advise Tenant of the new annual Base Rent and monthly Base Rent for the Premises no later than thirty (30) days after receipt of Tenant's written request therefor. Said request shall be made no earlier than thirty (30) days prior to the first date on which Tenant may exercise its Renewal Option under this Section 6.7. Said notification of the new annual Base Rent and monthly Base Rent may include a provision for its escalation to provide for a change in fair market rental between the time of notification and the commencement of the Renewal Term.

6.7.3 This Renewal Option is not transferable; the parties hereto acknowledge and agree that they intend that the aforesaid option to renew the Lease shall be "personal" to Tenant as set forth above and that in no event will any assignee or sublessee have any rights to exercise the aforesaid option to renew.

6.7.4 If the Renewal Option is validly exercised or if Tenant fails to validly exercise the Renewal Option, Tenant shall have no further right to extend the term of the Lease.

6.7.5 For purposes of this Renewal Option, "Prevailing Market" shall mean the arms length fair market annual rental rate per rentable square foot under renewal leases and amendments entered into on or about the date on which the Prevailing Market is being determined hereunder for space comparable to the Premises in the Building and buildings comparable to the Building in the same research and development rental market in the Hayward, California area as of the date the

Renewal Term is to commence, taking into account the specific provisions of the Lease which will remain constant. The determination of Prevailing Market shall take into account any material economic differences between the terms of the Lease and any comparison lease or amendment, such as rent abatements, construction costs and other concessions and the manner, if any, in which the landlord under any such lease is reimbursed for operating expenses and taxes. The determination of Prevailing Market shall also take into consideration any reasonably anticipated changes in the Prevailing Market rate from the time such Prevailing Market rate is being determined and the time such Prevailing Market rate will become effective under the Lease.

6.7.6 Notwithstanding anything herein to the contrary, the Renewal Option is subject and subordinate to the expansion rights (whether such rights are designated as a right of first offer, right of first refusal, expansion option or otherwise) of any tenant of the Building existing on the date hereof.

6.8 **HVAC Maintenance.** Tenant shall continue to maintain the existing hot water, heating and air conditioning systems and equipment within or serving the Premises on a quarterly basis as set forth in Paragraph 11 of the Original Lease, and a copy thereof shall be furnished to Landlord. The service contract must include all services suggested by the equipment manufacturer in the operation/maintenance manual. Should Tenant fail to do so, Landlord may, upon notice to Tenant, enter into such a maintenance/service contract on behalf of Tenant or perform the work and in either case, charge Tenant the cost thereof along with a reasonable amount for Landlord's overhead. So long as Tenant strictly complies with the requirements of this Section 6.8, and subject to the terms and conditions of this Section 6.8, Landlord, and not Tenant, shall be responsible for the cost and expense of the full replacement of any base building HVAC unit within or serving the Premises (excluding any specialized cooling systems or chillers that Tenant may have installed) that is more than fifteen (15) years old, when the same becomes necessary as reasonably determined by Landlord based on failure of major components such as motors, compressors or heat exchangers. Any such replacement units shall match the existing tonnage capacity of the failed unit. In addition, and notwithstanding the foregoing, Landlord shall not be responsible for the cost and expense of the full replacement of any HVAC unit to the extent necessary as a result of the acts or omissions of Tenant or any Tenant Entities (as defined hereinbelow) and/or related parties (excluding the normal use of the HVAC Unit in accordance with the terms of this Lease). The foregoing shall in no event modify or otherwise alter Tenant's responsibility to pay Tenant's Proportionate Share of Expenses, including, without limitation, its share of the costs and expenses associated with repair and maintenance of any heating, ventilation and air conditioning systems which serve the Building in general (as opposed to the HVAC Unit) and which are included in Expenses.

6.9 **Insurance and Indemnification.** Paragraphs 8.B and 8.C of the Original Lease are hereby deleted in their entireties and replaced with the following:

"**B. Tenant's Insurance.** Tenant shall keep in force throughout the Term: (a) a Commercial General Liability insurance policy or policies to protect the Landlord, Landlord's investment manager, and the trustees, boards of directors, officers, general partners, beneficiaries, stockholders, employees and agents of each of them (individually, a "**Landlord Party**" and collectively, the "**Landlord Parties**") against any liability to the

public or to any invitee of Tenant or a Landlord Party incidental to the use of or resulting from any accident occurring in or upon the Premises with a limit of not less than $2,000,000 in the annual aggregate, or such larger amount as Landlord may prudently require from time to time, covering bodily injury and property damage liability and $1,000,000 products/completed operations aggregate; (b) Business Auto Liability covering owned, non-owned and hired vehicles with a limit of not less than $1,000,000 per accident; (c) Worker's Compensation Insurance with limits as required by statute and Employers Liability with limits of $1,000,000 each accident, $1,000,000 disease policy limit, $1,000,000 disease-each employee; (d) All Risk or Special Form coverage protecting Tenant against loss of or damage to Tenant's alterations, additions, improvements, carpeting, floor coverings, panelings, decorations, fixtures, inventory and other business personal property situated in or about the Premises to the full replacement value of the property so insured; and, (e) Business Interruption Insurance with limit of liability representing loss of at least approximately six (6) months of income.

The aforesaid policies shall (a) be provided at Tenant's expense; (b) name the Landlord Parties as additional insureds (General Liability) and loss payee (Property—Special Form); (c) be issued by an insurance company with a minimum Best's rating of "A-:VII" during the Term; and (d) provide that said insurance shall not be canceled unless thirty (30) days prior written notice (ten days for non-payment of premium) shall have been given to Landlord; a certificate of Liability insurance on ACORD Form 25 and a certificate of Property insurance on ACORD Form 28 shall be delivered to Landlord by Tenant at least thirty (30) days prior to each renewal of said insurance.

Whenever Tenant shall undertake any alterations, additions or improvements in, to or about the Premises ("**Work**") the aforesaid insurance protection must extend to and include injuries to persons and damage to property arising in connection with such Work, without limitation including liability under any applicable structural work act, and such other insurance as Landlord shall require; and the policies of or certificates evidencing such insurance must be delivered to Landlord prior to the commencement of any such Work.

C. Indemnification. None of the Landlord Parties shall be liable and Tenant hereby waives all claims against them for any damage to any property or any injury to any person in or about the Premises or the Building by or from any cause whatsoever (including without limiting the foregoing, rain or water leakage of any character from the roof, windows, walls, basement, pipes, plumbing works or appliances, the Building not being in good condition or repair, gas, fire, oil, electricity or theft), except to the extent caused by or arising from the active negligence or willful misconduct of Landlord or its agents, employees or contractors. Tenant shall protect, indemnify and hold the Landlord Parties harmless from and against any and all loss, claims, liability or costs (including court costs and attorney's fees) incurred by reason of (a) any damage to any property (including but not limited to property of any Landlord Party) or any injury (including but not limited to death) to any person occurring in, on or about the Premises or the Building to the extent that such injury or damage shall be caused by or arise from any actual or alleged act, neglect, fault, or omission by or of Tenant or Tenant's Parties to meet any standards imposed by any duty with respect to the injury or damage; (b) the conduct or management of any work or thing whatsoever done by the Tenant in or about the Premises or from transactions of the Tenant concerning the Premises; (c) Tenant's actual or asserted failure to comply with any and all Regulations applicable to the condition or use of the Premises or

its occupancy; or (d) any breach or default on the part of Tenant in the performance of any covenant or agreement on the part of the Tenant to be performed pursuant to the Lease. The provisions of this Paragraph shall survive the termination of the Lease with respect to any claims or liability accruing prior to such termination."

Tenant shall provide Landlord with a certificate of insurance evidencing Tenant's insurance, including without limitation, the insurance set forth in this Section 6.9, upon delivery of this Amendment, executed by Tenant, to Landlord, and thereafter as necessary to assure that Landlord always has current certificates evidencing Tenant's insurance."

7. **Hazardous Materials.** Landlord acknowledges that Tenant is a biopharmaceutical corporation engaged in the business of biotechnological and pharmaceutical research and development. Tenant shall not, and shall not direct, suffer or permit any of its agents, contractors, employees, licensees or invitees (collectively, the "Tenant Entities") to at any time use, store, generate, treat, discharge, disburse, handle, manufacture, transport or dispose of (collectively, "Handle") in or about the Premises or the Building any (collectively "Hazardous Materials") flammables, explosives, radioactive materials, hazardous wastes or materials, toxic wastes or materials, or other similar substances, petroleum products or derivatives or any substance subject to regulation by or under any federal, state and local laws and ordinances relating to the protection of the environment or the keeping, use or disposition of environmentally hazardous materials, substances, or wastes, presently in effect or hereafter adopted, all amendments to any of them, and all rules and regulations issued pursuant to any of such laws or ordinances (collectively "Environmental Laws"), nor shall Tenant suffer or permit any Hazardous Materials to be used in any manner not fully in compliance with all Environmental Laws, in the Premises or the Building and appurtenant land or allow the environment to become contaminated with any Hazardous Materials. Notwithstanding the foregoing, Landlord acknowledges that Tenant routinely uses certain Hazardous Materials in its research and development activities, and Landlord agrees that, subject to the terms and provisions of this Lease, Tenant may Handle products containing small quantities of Hazardous Materials (such as aerosol cans containing insecticides, toner for copiers, paints, paint remover and the like) to the extent customary and necessary for the use of the Premises for general office purposes; provided that Tenant shall always Handle any such Hazardous Materials in a safe and lawful manner and never allow such Hazardous Materials to contaminate the Premises, Building and appurtenant land or the environment. Tenant shall protect, defend, indemnify and hold each and all of the following "Landlord Entities" (being Landlord, Landlord's investment manager, and the trustees, boards of directors, officers, general partners, beneficiaries, stockholders, employees and agents of each of them) harmless from and against any and all loss, claims, liability or costs (including court costs and attorney's fees) incurred by reason of any actual or asserted failure of Tenant to fully comply with all applicable Environmental Laws, or the presence, handling, use or disposition in or from the Premises of any Hazardous Materials by Tenant or any Tenant Entity (even though permissible under all applicable Environmental Laws or the provisions of this Lease), or by reason of any actual or asserted failure of Tenant to keep, observe, or perform any provision of this Section 7. Prior to the commencement of the Extended Term (and at least ten (10) days prior to any assignee or any subtenant of Tenant taking possession of any part of the Premises), Tenant shall disclose to Landlord in writing the names and amounts of all Hazardous Materials, or any combination thereof, which Tenant desires to Handle on, in, under or about the Premises or Project during the Term by executing and delivering to Landlord a "Hazardous Materials Questionnaire", in the form attached hereto as Exhibit A (as updated and modified by Landlord, from time to time). Tenant will annually update and file with the City of Hayward Fire Department the Hazardous

Material Inventory – Chemical Description and promptly provide a copy of the updated Hazardous Material Inventory – Chemical Description to the Landlord. Tenant's disclosure obligations under this Section 7 shall include a requirement that, to the extent any information contained in a Hazardous Materials Questionnaire previously delivered by Tenant shall become inaccurate in any material respect, Tenant shall, within a reasonable time thereafter, deliver to Landlord a new updated Hazardous Materials Questionnaire. Landlord shall review and approve or disapprove Tenant's use of the Hazardous Materials disclosed in Tenant's completed Hazardous Materials Questionnaire within a reasonable time period following Landlord's receipt thereof.

7.1 Tenant agrees that Tenant, its agents and contractors, licensees, or invitees shall not Handle any Hazardous Materials on, under, or about the Premises, without Landlord's prior written consent (which consent shall not be unreasonably withheld as long as Tenant demonstrates and documents to Landlord's reasonable satisfaction (a) that such Hazardous Materials (i) are necessary or useful to Tenant's business; and (ii) will be used, kept, and stored in compliance with all laws relating to any Hazardous Materials so brought or used or kept in or about the Premises; and (b) that Tenant will give all required notices concerning the presence in or on the Premises or the release of such Hazardous Materials from the Premises) provided that Tenant may handle, store, use or dispose of products containing small quantities of Hazardous Materials, which products are of a type customarily found in offices and households (such as aerosol cans containing insecticides, toner for copies, paints, paint remover, and the like), provided further that Tenant shall Handle any such Hazardous Materials in a safe and lawful manner and shall not allow such Hazardous Materials to contaminate the Premises or the Building or the property upon which the Building is located ("Property").

7.2 Tenant further agrees that Tenant will not permit any substance suspected of causing cancer or reproductive toxicity to come into contact with groundwater under the Premises or Property. Any such substance coming into contact with groundwater shall be considered a Hazardous Material.

7.3 Notwithstanding the provisions of Section 7.1, and subject to the terms and conditions hereof, Tenant may Handle Hazardous Materials, limited to the types, amounts, and use identified in the Hazardous Materials Questionnaire and the Hayward Fire Department Hazardous Material Inventory – Chemical Description, both of which are attached hereto as Exhibit A. Tenant hereby certifies to Landlord that the information provided by Tenant pursuant to this Section 7 is true, correct, and complete. Tenant's business and operations, and its handling, storage, use and disposal of Hazardous Materials shall at all times comply with all Environmental Laws. Tenant shall secure and abide by all permits necessary, including environmental permits, for Tenant's operations on the Premises. Tenant shall give or post all notices required by all Environmental Laws. If Tenant shall at any time fail to comply with this Section 7, Tenant shall immediately notify Landlord in writing of such noncompliance.

7.4 Tenant shall provide Landlord with the name and quantity of any proposed new Hazardous Material to be used, kept, or stored at or on the Premises at least thirty (30) days after the first use, placement, or storage of such Hazardous Material on the Premises, and shall provide Landlord with copies of any Material Safety Data Sheets (as

required by the Occupational Safety and Health Act of 1970, and regulations promulgated thereto) relating to such Hazardous Materials within ten (10) days after request by Landlord.

7.5 Tenant shall not store hazardous wastes on the Premises for more than ninety (90) days; "hazardous waste" has the meaning given it by the Resource Conservation and Recovery Act of 1976, as amended. Tenant shall not install any underground or above ground storage tanks on the Premises. Tenant shall not dispose of any Hazardous Material or solid waste on the Premises. In performing any alterations of the Premises permitted by this Lease, Tenant shall not install any Hazardous Material in the Premises without the specific written consent of Landlord.

7.6 Any increase in the premiums for necessary insurance on the Building or the Property which arises from Tenant's use and/or storage of Hazardous Materials shall be borne solely by Tenant. Tenant shall procure and maintain at its sole expense such additional insurance as may be necessary to comply with any requirement of any federal, state or local governmental agency with jurisdiction.

7.7 If Landlord, in its sole discretion, reasonably believes that the Premises, the Building or the Property have become contaminated with Hazardous Materials that must be removed under the laws of the State in which the Premises is located or otherwise in breach of the provisions of this Lease, Landlord, in addition to its other rights under this Lease, may enter upon the Premises and obtain samples from the Premises, including without limitation the soil and groundwater under the Premises, for the purposes of analyzing the same to determine whether and to what extent the Premises, the Building or the Property have become so contaminated. Tenant shall reimburse Landlord for the costs of any inspection, sampling and analysis that discloses contamination for which Tenant is liable under the terms of this Lease. Tenant may not perform any sampling, testing, or drilling to locate any Hazardous Materials on the Premises without Landlord's prior written consent.

7.8 Without limiting the above, Tenant shall reimburse, defend, indemnify and hold Landlord and the Landlord Entities harmless from and against any and all claims, losses, liabilities, damages, costs and expenses, including without limitation, loss of rental income, loss due to business interruption, and attorneys fees and costs, arising out of or in any way connected with the use, manufacture, storage, or disposal of Hazardous Materials by Tenant, any Tenant Entities or Tenant's contractors on, under or about the Premises including, without limitation, the costs of any required or necessary investigation, repair, cleanup or detoxification and the preparation of any closure or other required plans in connection herewith, whether voluntary or compelled by governmental authority. The indemnity obligations of Tenant under this Section shall survive the expiration or any termination of this Lease. At Landlord's option, Tenant shall perform any required or necessary investigation, repair, cleanup, or detoxification of the Premises and the Property. In such case, Landlord shall have the right, in its sole discretion, to approve all plans, consultants, and cleanup standards. Tenant shall provide Landlord on a timely basis with (a) copies of all documents, reports, and communications with governmental authorities; and (b) notice and an opportunity to attend all meetings with regulatory authorities. Tenant shall comply with all notice

requirements and Landlord and Tenant agree to cooperate with governmental authorities seeking access to the Premises for purposes of sampling or inspection. No disturbance of Tenant's use of the Premises resulting from activities conducted pursuant to this Section shall constitute an actual or constructive eviction of Tenant from the Premises. In the event that such cleanup extends beyond the termination of this Lease, Tenant's obligation to pay rent (including additional rent and percentage rent, if any) shall continue until such cleanup is completed and any certificate of clearance or similar document has been delivered to Landlord. Rent during such holdover period shall be at market rent; if the parties are unable to agree upon the amount of such market rent, then Landlord shall have the option of (i) increasing the rent for the period of such holdover based upon the increase in the cost-of-living from the third month preceding the commencement date to the third month preceding the start of the holdover period, using such indices and assumptions and calculations as Landlord in its sole reasonable judgment shall determine are necessary; or (ii) having Landlord and Tenant each appoint a qualified MAI appraiser doing business in the area; in turn, these two independent MAI appraisers shall appoint a third MAI appraiser and the majority shall decide upon the fair market rental for Premises as of the expiration of the then current term. Landlord and Tenant shall equally share in the expense of this appraisal except that in the event the rent is found to be within fifteen percent (15%) of the original rate quoted by Landlord, then Tenant shall bear the full cost of all the appraisal process. In no event shall the rent be subject to determination or modification by any person, entity, court, or authority other than as set forth expressly herein, and in no event shall the rent for any holdover period be less than the rent due in the preceding period.

7.9 Notwithstanding anything set forth in this Lease, Tenant shall only be responsible for contamination of Hazardous Materials or any cleanup resulting directly therefrom, resulting directly from matters occurring or Hazardous Materials deposited (other than by contractors, agents or representatives controlled by Landlord) during the Term (as the same may be extended), and any other period of time during which Tenant or Tenant's Entities are in actual or constructive occupancy of the Premises. Tenant shall take reasonable precautions to prevent the contamination of the Premises with Hazardous Materials by third parties.

7.10 It shall not be unreasonable for Landlord to withhold its consent to any proposed assignment or sublease if (a) the proposed assignee's or sublessee's anticipated use of the Premises involves the generation, storage, use, treatment or disposal of Hazardous Materials in significantly greater quantities or that pose a significantly increased risk, in Landlord's sole discretion, than Tenant's use; (b) the proposed assignee or sublessee has been required by any prior landlord, lender, or governmental authority to take remedial action in connection with Hazardous Materials contaminating a property if the contamination resulted from such assignee's or sublessee's actions or use of the property in question; or (c) the proposed assignee or sublessee is subject to an enforcement order issued by any governmental authority in connection with the use, disposal, or storage of a hazardous material.

7.11 Any of Tenant's insurance insuring against claims of the type dealt with in this Section 7 shall be considered primary coverage for claims against the Property arising out of or under this Section 7.

7.12 In the event of (a) any transfer of Tenant's interest under this Lease; or (b) the termination of this Lease, by lapse of time or otherwise, Tenant shall be solely responsible for compliance with any and all then effective federal, state or local laws concerning the presence of Hazardous Materials in or on the Premises, Building, or the Property (for example, the New Jersey Environmental Cleanup Responsibility Act, the Illinois Responsible Property Transfer Act, or similar applicable state laws), including but not limited to any reporting or filing requirements imposed by such Regulations. Tenant's duty to pay any rent and additional rent shall continue until the obligations imposed by such Regulations are satisfied in full and any certificate of clearance or similar document has been delivered to Landlord.

7.13 All consents given by Landlord pursuant to this Section 7 shall be in writing and shall be attached as amendments to this Lease. If such consents are not attached to this Lease, then such consents will be deemed withheld.

8. **Miscellaneous.**

8.1 This Amendment sets forth the entire agreement between the parties with respect to the matters set forth herein. There have been no additional oral or written representations or agreements. Under no circumstances shall Tenant be entitled to any rent abatement, improvement allowance, leasehold improvements, or other work to the Premises, or any similar economic incentives that may have been provided Tenant in connection with entering into the Lease, unless specifically set forth in this Amendment.

8.2 Except as herein modified or amended, the provisions, conditions and terms of the Lease shall remain unchanged and in full force and effect.

8.3 In the case of any inconsistency between the provisions of the Lease and this Amendment, the provisions of this Amendment shall govern and control.

8.4 Submission of this Amendment by Landlord is not an offer to enter into this Amendment but rather is a solicitation for such an offer by Tenant. Landlord shall not be bound by this Amendment until Landlord has executed and delivered the same to Tenant.

8.5 The capitalized terms used in this Amendment shall have the same definitions as set forth in the Lease to the extent that such capitalized terms are defined therein and not redefined in this Amendment.

8.6 Tenant hereby represents to Landlord that Tenant has dealt with no broker in connection with this Amendment. Tenant agrees to indemnify and hold Landlord, its members, principals, beneficiaries, partners, officers, directors, employees, mortgagee(s) and agents, and the respective principals and members of any such agents (collectively, the "**Landlord Related Parties**") harmless from all claims of any brokers claiming to have represented Tenant in connection with this Amendment. Landlord hereby represents to Tenant that Landlord has dealt with no broker in connection with this Amendment. Landlord agrees to indemnify and hold Tenant harmless from all claims of any brokers claiming to have represented Landlord in connection with this Amendment.

8.8 Redress for any claim against Landlord under the Lease and this Amendment shall be limited to and enforceable only against and to the extent of Landlord's interest in the Building. The obligations of Landlord under the Lease are not intended to and shall not be personally binding on, nor shall any resort be had to the private properties of, any of its trustees or board of directors and officers, as the case may be, its investment manager, the general partners thereof, or any beneficiaries, stockholders, employees, or agents of Landlord or the investment manager, and in no case shall Landlord be liable to Tenant hereunder for any lost profits, damage to business, or any form of special, indirect or consequential damage.

IN WITNESS WHEREOF, Landlord and Tenant have entered into and executed this Amendment as of the date first written above.

LANDLORD:

NORTHERN CALIFORNIA INDUSTRIAL PORTFOLIO, INC., a Maryland corporation

By: RREEF America L.L.C.,
a Delaware limited liability company, its Investment Advisor

By: /s/ John D. Baruh

Name: John D. Baruh

Title: Vice President

Dated: July 19, 2010

TENANT:

METABOLEX, INC.,
a Delaware corporation

By: /s/ Harold Van Wart

Name: Harold Van Wart

Title: CEO

Dated: July 15, 2010

EXHIBIT A – HAZARDOUS MATERIALS QUESTIONNAIRE

attached to and made a part of the Amendment bearing the date of Error! Reference source not found., between NORTHERN CALIFORNIA INDUSTRIAL PORTFOLIO, INC., a Maryland corporation, as Landlord, and METABOLEX, INC., a Delaware corporation, as Tenant

This questionnaire is designed to solicit information regarding Tenant's proposed use, generation, treatment, storage, transfer or disposal of hazardous or toxic materials, substances or wastes. If this questionnaire is attached to or provided in connection with a lease, the reference herein to any such items shall include all items defined as "Hazardous Materials," "Hazardous Substances," "Hazardous Wastes," "Toxic Materials," "Toxic Substances, "Toxic Wastes," or such similar definitions contained in such lease. Please complete the questionnaire and return it to Landlord for evaluation. If your use of materials or substances, or generation of wastes is considered to be significant, further information may be requested regarding your plans for hazardous and toxic materials management. Submission to Landlord of this Hazardous Materials Questionnaire or Landlord's request for additional information shall not deemed consent by Landlord to Tenant's use of the materials disclosed herein. Your cooperation in this matter is appreciated. If you have any questions, do not hesitate to call us for assistance.

1. PROPOSED TENANT

Name (Corporation, Individual, Corporate or Individual DBA, or Public Agency): Metabolex, Inc.

Standard Industrial Classification Code (SIC): 8731

Street Address: 3876 Bay Center Place

City, State, Zip Code: Hayward, CA 94545

Contact Person & Title: Derek Apodaca, Director Facilities

Telephone Number: (510) 293-8812

Facsimile Number: (510) 293-9090

2. LOCATION AND ADDRESS OF PROPOSED LEASE

Street Address: 3860-3880 Bay Center Place

City, State, Zip Code: Hayward, CA94545

Bordering Streets: Breakwater and Whitesell

Streets to which Premises has Access: Same

3. DESCRIPTION OF PREMISES

Floor Area: 41,600 s.f.

Number of Parking Spaces: Shared

Date of Original Construction: 1984

Past Uses of Premises: Plant Biology, Biotechnology

Dates and Descriptions of Significant Additions, Alterations or Improvements: 2000 Medicinal Chemistry lab buildout, 2001 office expansion, 2007 lab and office remodel

Proposed Additions, Alterations or Improvements, if any: N/A at this time N/A

4. DESCRIPTION OF PROPOSED PREMISES USE

Describe proposed use and operation of Premises including (i) services to be performed, (ii) nature and types of manufacturing or assembly processes, if any, and (iii) the materials or products to be stored at the Premises.

Research Lab developing therapeutics for diabetes and other metabolic disorders, activities include: Biological Research, Medicinal Chemistry, In-vivo Pharmacology (rats/mice), research supplies and reagents

Will the operation of your business at the Premises involve the use, generation, treatment, storage, transfer or disposal of hazardous wastes or materials? Do they now? Yes X No __ If the answer is "yes," or if your SIC code number is between 2000 to 4000, please complete Section 5.

5. PERMIT DISCLOSURE

Does or will the operation of any facet of your business at the Premises require any permits, licenses or plan approvals from any of the following agencies?

U.S. Environmental Protection Agency	Yes __ No X
City or County Sanitation District	Yes __ No X
State Department of Health Services	Yes X No __
U.S. Nuclear Regulatory Commission	Yes __ No X
Air Quality Management District	Yes __ No X
Bureau of Alcohol, Firearms and Tobacco	Yes __ No X
City or County Fire Department	Yes X No __
Regional Water Quality Control Board	Yes X No __
Other Governmental Agencies (if yes,	Yes X No __
identify: California Department of Toxic Substances Control, DEA)	

If the answer to any of the above is "yes," please indicate permit or license numbers, issuing agency and expiration date or renewal date, if applicable.

Hayward Industrial Wastewater discharge Permit 96-1122.01-2MS exp 8/19/12, California Radioactive Material License 5511-01, under timely renewal. California DTSC, CAL000094498, Hayward Fire CUPA HMBP 10-0112201-010951, DEA RMO185620

If your answer to any of the above is "yes," please complete Sections 6 and 7.

6. HAZARDOUS MATERIALS DISCLOSURE

Will any hazardous or toxic materials or substances be stored on the Premises? Yes X No __ If the answer is "yes," please describe the materials or substances to be stored, the quantities thereof and the proposed method of storage of the same (i.e., drums, aboveground or underground storage tanks, cylinders, other), and whether the material is a Solid (S), Liquid (L) or Gas (G):

Material/Substance	Quantity to be Stored on Premises	Storage Method	Amount to be Stored on a Monthly Basis	Maximum Period of Premises Storage
SEE attached Inventory				

Attach additional sheets if necessary.

Is any modification of the Premises improvements required or planned to mitigate the release of toxic or hazardous materials substance or wastes into the environment? Yes __ No X If the answer is "yes," please describe the proposed Premises modifications:

_____

_____

_____

7. HAZARDOUS WASTE DISCLOSURE

Will any hazardous waste, including recyclable waste, be generated by the operation of your business at the Premises? Yes X No __ If the answer is "yes," please list the hazardous waste which is expected to be generated (or potentially will be generated) at the Premises, its hazard class and volume/frequency of generation on a monthly basis.

Waste Name	Hazard Class	Volume/Month	Maximum Period of Premises Storage
Aqueous/Organic	Flammable/Trace organics	20-40 gallons ca	14 days average
Solid Organic	Trace Organics	55 gallon/dry	90 days max
Low Level Radioactive Waste	Radioactive	varies	varies

Attach additional sheets if necessary.

If the answer is "yes," please also indicate if any such wastes are to be stored within the Premises and the proposed method of storage (i.e., drums, aboveground or underground storage tanks, cylinders, other).

Waste Name	Storage Method
Aqueous/Organic Waste	20 gallon DOT drum
Solid Waste trace organics	55 gallon drum
Low level Radioactive Waste	55 gallon drum

Attach additional sheets if necessary.

If the answer is "yes," please also describe the method(s) of disposal for each waste. Indicate where disposal will take place including the methods, equipment and companies to be used to transport the waste:

Ingenium will remove transport and dispose or recycle all, solid and liquid chemical waste as well as Universal Waste Environmental Management Controls, will remove transport and dispose of all low level radioactive waste

Is any treatment or processing of hazardous wastes to be conducted at the Premises? Yes __ No X If the answer is "yes," please describe proposed treatment/processing methods:

Which agencies are responsible for monitoring and evaluating compliance with respect to the storage and disposal of hazardous materials or wastes at or from the Premises? (Please list all agencies):

Hayward Fire Department. California Radiologic Health Branch, Hayward Water Polution Source Control, California Department of Toxic Substance Control

Have there been any agency enforcement actions regarding Tenant (or any affiliate thereof), or any existing Tenant's (or any affiliate's) facilities, or any past, pending or outstanding administrative orders or consent decrees with respect to Tenant or any affiliate thereof? Yes __ No X If the answer is "yes," have there been any continuing compliance obligations imposed on Tenant or its affiliates as a result of the decrees or orders? Yes __ No __ If the answer is "yes," please describe:

Has Tenant or any of its affiliates been the recipient of requests for information, notice and demand letters, cleanup and abatement orders, or cease and desist orders or other administrative inquiries? Yes __ No X If the answer is "yes," please describe:

Are there any pending citizen lawsuits, or have any notices of violations been provided to Tenant or its affiliates or with respect to any existing facilities pursuant to the citizens suit provisions of any statute? Yes __ No X If the answer is "yes," please describe:

Have there been any previous lawsuits against the company regarding environmental concerns? Yes __ No X If the answer is "yes," please describe how these lawsuits were resolved:

Has an environmental audit ever been conducted at any of your company's existing facilities? Yes X No __ If the answer is "yes," please describe:

We have conducted outside audits of our Safety Programs by Hazard Solutions. LLC We have also been subject to inspection by a RREI contractor on an annual basis.

Does your company carry environmental impairment insurance? Yes __ No X If the answer is "yes," what is the name of the carrier and what are the effective periods and monetary limits of such coverage?

8. EQUIPMENT LOCATED OR TO BE LOCATED AT THE PREMISES

Is (or will there be) any electrical transformer or other equipment containing polychlorinated biphenyls located at the Premises?

Yes __ No X If the answer is "yes," please specify the size, number and location (or proposed location):

Is (or will there be) any tank for storage of a petroleum product located at the Premises? Yes X No __ If the answer is "yes," please specify capacity and contents of tank; permits, licenses and/or approvals received or to be received therefor and any spill prevention control or conformance plan to be taken in connection therewith:

175 gallon belly tank on diesel generator - Spill kits/drums on hand, in house 40Hr HAZWOPER trained spill response team, Safe Compliance Management and Hazard Solutions, LLC and Ingenium identified to provide additional resources as needed as well as lo emergency response personnel.

9. ONGOING ACTIVITIES (APPLICABLE TO TENANTS IN POSSESSION)

Has any hazardous material, substance or waste spilled, leaked, discharged, leached, escaped or otherwise been released into the environment at the Premises? Yes __ No X If the answer is "yes," please describe including (i) the date and duration of each such release, (ii) the material, substance or waste released, (iii) the extent of the spread of such release into or onto the air, soil and/or water, (iv) any action to clean up the release, (v) any reports or notifications made of filed with any federal, state, or local agency, or any quasi-governmental agency (please provide copies of such reports or notifications) and (vi) describe any legal, administrative or other action taken by any of the foregoing agencies or by any other person as a result of the release:

This Hazardous Materials Questionnaire is certified as being true and accurate and has been completed by the party whose signature appears below on behalf of Tenant as of the date set forth below.

DATED: 7/15/10

Signature /s/ Derek Apodaca

Print Name Derek Apodaca

Title Director, Facilities Metabolex Inc