CYTOKINETICS INC
Form S-3
November 10, 2008

Table of Contents

As filed with Securities and Exchange Commission on November 10, 2008
Registration No. 333-

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

FORM S-3
REGISTRATION STATEMENT
Under
The Securities Act of 1933

CYTOKINETICS, INCORPORATED
(Exact name of Registrant as specified in its charter)

Delaware	**94-3291317**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

280 East Grand Avenue
South San Francisco, California 94080
(650) 624-3000
(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

Robert I. Blum
President & Chief Executive Officer
Cytokinetics, Incorporated
280 East Grand Avenue
South San Francisco, California 94080
(650) 624-3000
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
Michael J. O Donnell, Esq.
Alexander D. Phillips, Esq.
Wilson Sonsini Goodrich & Rosati,
Professional Corporation
650 Page Mill Road
Palo Alto, CA 94304
(650) 493-9300

Approximate date of commencement of proposed sale to the public: From time to time after effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. þ

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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 o	Accelerated filer þ	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)(2)(3)	Proposed Maximum Offering Price Per Unit (1)	Proposed Maximum Aggregate Offering Price (1)(2)(3)	Amount of Registration Fee (2)
Common Stock, $0.001 par value				
Preferred Stock, $0.001 par value				
Warrants				
Total			$ 100,000,000	$ 3,930

(1) Not specified as to each class of securities to be registered, pursuant to General Instruction II.D of Form S-3 under the Securities Act of 1933, as amended.

(2) The Registrant is hereby registering an indeterminate amount and

number of each identified class of the identified securities up to a proposed maximum aggregate offering price of $100,000,000, which may be offered from time to time at indeterminate prices, including securities that may be purchased by underwriters. Of this amount, securities having a proposed maximum aggregate offering price of $10,000,000 were registered by the Registrant pursuant to a prior registration statement (File No. 333-125786), originally filed on June 14, 2005, and have not yet been issued and sold. Pursuant to Rule 415(a)(6) under the Securities Act, the Registrant hereby includes on this registration statement such securities remaining unissued and unsold under the prior registration statement. The registration fee with respect to the securities that

have not yet been issued or sold under the prior registration statement is $1,177, and the registration fee due hereunder is being offset against the previously paid registration fee pursuant to Rule 457(p) under the Securities Act. The Registrant has estimated the proposed maximum aggregate offering price solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act. Securities registered hereunder may be sold separately, together or as units with other securities registered hereunder.

(3) The Registrant is hereby registering an indeterminate amount and number of each identified class of the identified securities as may be issued upon conversion, exchange or exercise of any other securities that provide for

such conversion, exchange or exercise.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission acting pursuant to said Section 8(a) may determine.

Table of Contents

PROSPECTUS

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED NOVEMBER 10, 2008

$100,000,000

Cytokinetics, Incorporated

COMMON STOCK
PREFERRED STOCK
WARRANTS

From time to time, we may sell any of the securities listed above. All of the securities listed above may be sold separately or as units with other securities. We will specify in an accompanying prospectus supplement the terms of any offering. Our common stock is traded on the NASDAQ Global Market under the trading symbol CYTK. On November 7, 2008 the last reported sale price of our common stock on the NASDAQ Global Market was $2.79 per share.

You should read this prospectus, any prospectus supplement and the documents incorporated by reference in this prospectus and any prospectus supplement carefully before you invest. **This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.**

Investing in our securities involves a high degree of risk. You should carefully consider the Risk Factors beginning on page 2 of this prospectus before you make an investment decision.

The securities offered by this prospectus may be offered in amounts, at prices and at terms determined at the time of the offering and may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution. The net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 200

TABLE OF CONTENTS

No person has been authorized to give any information or make any representations in connection with this offering other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement in connection with the offering described herein and therein, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. Neither the delivery of this prospectus or any prospectus supplement nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement is correct as of any date subsequent to the date hereof or of such prospectus supplement.

Table of Contents

SUMMARY

The following summary is qualified in its entirety by the more detailed information, including our consolidated financial statements and related notes incorporated in this prospectus by reference. You should carefully consider the information set forth in this entire prospectus, including the Risk Factors section, the applicable prospectus supplement for such securities and the other documents we refer to and incorporate by reference. Unless the context otherwise requires, the terms Cytokinetics, we, us and our refer to Cytokinetics, Incorporated, a Delaware corporation.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus, in one or more offerings, up to an aggregate offering price of $100,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of those securities. This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement, including the risk factors, together with the additional information described under the headings Where You Can Find Information and Information Incorporated by Reference.

Cytokinetics, Incorporated

Cytokinetics, Incorporated is a biopharmaceutical company focused on developing small molecule therapeutics for the potential treatment of cardiovascular diseases and other diseases relating to muscle biology, cancer and other diseases. Our current clinical development activities are primarily directed to advancing multiple drug candidates through clinical trials with the objective of determining the intended pharmacodynamic effect or effects in two principal diseases: heart failure and cancer. Our drug development pipeline consists of a drug candidate, CK-1827452, being developed in both an intravenous and oral formulation for the potential treatment of heart failure; three drug candidates, ispinesib, SB-743921 and GSK-923295, each being developed in an intravenous formulation for the potential treatment of cancer; and a potential drug candidate for the potential treatment of skeletal muscle weakness associated with neuromuscular diseases or other conditions. Our drug candidates and potential drug candidate are all novel small molecules that arose from our research activities and are directed toward the cytoskeleton. We believe our understanding of the cytoskeleton enables us to discover novel and potentially safer and more effective therapeutics.

We were incorporated in Delaware in August 1997. Our principal executive offices are located at 280 East Grand Avenue, South San Francisco, California 94080 and our telephone number at that address is (650) 624-3000.

CYTOKINETICS and our logo used alone and with the mark CYTOKINETICS are our registered service marks and trademarks. Other service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners.

Table of Contents

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the risks described below before making an investment decision. You should also refer to the other information in this prospectus, including our financial statements and the related notes incorporated by reference into this prospectus. The risks and uncertainties described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the following risks actually occur, our business, results of operations and financial condition could suffer. In that event, the trading price of the securities being offered by this prospectus could decline, and you may lose all or part of your investment in our securities. The risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements.

Risks Related To Our Business

Our drug candidates are in the early stages of clinical testing and we have a history of significant losses and may not achieve or sustain profitability and, as a result, you may lose all or part of your investment.

Our drug candidates are in the early stages of clinical testing, and we must conduct significant additional clinical trials before we can seek the regulatory approvals necessary to begin commercial sales of our drugs. We have incurred operating losses in each year since our inception in 1997 due to costs incurred in connection with our research and development activities and general and administrative costs associated with our operations. We expect to incur increasing losses for at least several more years, as we continue our research activities and conduct development of, and seek regulatory approvals for, our drug candidates, and commercialize any approved drugs. If our drug candidates fail or are significantly delayed in clinical trials or do not gain regulatory approval, or if our drugs do not achieve market acceptance, we will not be profitable. If we fail to become and remain profitable, or if we are unable to fund our continuing losses, you could lose all or part of your investment.

We have never generated, and may never generate, revenues from commercial sales of our drugs and we may not have drugs to market for at least several years, if ever.

We currently have no drugs for sale and we cannot guarantee that we will ever have marketable drugs. We must demonstrate that our drug candidates satisfy rigorous standards of safety and efficacy to the U.S. Food and Drug Administration (FDA) and other regulatory authorities in the United States and abroad. We and our partners will need to conduct significant additional research and preclinical and clinical testing before we or our partners can file applications with the FDA or other regulatory authorities for approval of our drug candidates. In addition, to compete effectively, our drugs must be easy to use, cost-effective and economical to manufacture on a commercial scale, compared to other therapies available for the treatment of the same conditions. We may not achieve any of these objectives. CK-1827452, our drug candidate for the potential treatment of heart failure, and ispinesib, SB-743921 and GSK-923295, our drug candidates for the potential treatment of cancer, are currently our only drug candidates in clinical trials and we cannot be certain that the clinical development of these or any future drug candidate will be successful, that they will receive the regulatory approvals required to commercialize them, or that any of our other research programs will yield a drug candidate suitable for clinical testing or commercialization. Our commercial revenues, if any, will be derived from sales of drugs that we do not expect to be commercially available for several years, if at all. The development of any one or all of these drug candidates may be discontinued at any stage of our clinical trials programs and we may not generate revenue from any of these drug candidates.

Table of Contents

We currently finance and plan to continue to finance our operations through the sale of equity, strategic alliances and debt financings, which may result in additional dilution to our stockholders, relinquishment of valuable technology rights or the imposition of restrictive covenants, or which may cease to be available on favorable terms or at all.

We have funded all of our operations and capital expenditures with proceeds from private and public sales of our equity securities, strategic alliances with GlaxoSmithKline (GSK), Amgen, Inc., AstraZeneca AB and others, equipment financings, interest on investments and government grants. We believe that our existing cash and cash equivalents, potential payments from GSK and Amgen, interest earned on investments, proceeds from equipment financings and potential proceeds from our 2007 committed equity financing facility with Kingsbridge Capital Limited (Kingsbridge) will be sufficient to meet our projected operating requirements for at least the next 12 months. To meet our future cash requirements, we may raise funds through public or private equity offerings, strategic alliances or debt financings. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience additional dilution. To the extent that we raise additional funds through strategic alliance and licensing arrangements, we will likely have to relinquish valuable rights to our technologies, research programs or drug candidates, or grant licenses on terms that may not be favorable to us. To the extent that we raise additional funds through debt financing, the financing may involve covenants that restrict our business activities. In addition, such funding, if needed, may not be available to us on favorable terms, or at all. If we can not raise the funds we need on favorable terms, or at all, our ability to conduct our business will be significantly harmed and we may need to discontinue certain research and development activities, and our stock price could be negatively affected.

Clinical trials may fail to demonstrate the desired safety and efficacy of our drug candidates, which could prevent or significantly delay completion of clinical development and regulatory approval.

Prior to receiving approval to commercialize any of our drug candidates, we must adequately demonstrate to the FDA and foreign regulatory authorities that the drug candidate is both sufficiently safe and effective with substantial evidence from well-controlled clinical trials. In clinical trials we will need to demonstrate efficacy for the treatment of specific indications and monitor safety throughout the clinical development process and possibly following approval. None of our drug candidates have yet been demonstrated to be safe and effective in clinical trials and they may never be. In addition, for each of our current preclinical compounds, we must adequately demonstrate satisfactory chemistry, formulation, stability and toxicity in order to file an investigational new drug application (IND) with the FDA, or an equivalent application in foreign jurisdictions, that would allow us to advance that compound into clinical trials. If our current or future preclinical studies or clinical trials are unsuccessful, our business will be significantly harmed and our stock price could be negatively affected.

All of our drug candidates are prone to the risks of failure inherent in drug development. Preclinical studies may not yield results that would adequately support the filing of an IND (or a foreign equivalent) with respect to our potential drug candidates. Even if these applications are or have been filed with respect to our drug candidates, the results of preclinical studies do not necessarily predict the results of clinical trials. For example, although preclinical testing indicated that ispinesib causes tumor regression in a variety of tumor types, to date, Phase II clinical trials of ispinesib have not shown clinical activity in a number of different tumor types. Similarly, Phase I clinical trials in healthy volunteers and clinical results from Phase I and II trials in patients are not necessarily indicative of the results of later-stage clinical trials that are necessary to establish whether a drug candidate is safe and effective for the applicable indication. In addition, the clinical

Table of Contents

trials for any of our drug candidates may not be designed with focus on the appropriate indications, tumor types, patient populations, dosing regimens, safety or efficacy parameters, or other variables to provide the necessary safety or efficacy data to support regulatory approval to commercialize the resulting drugs. For example, in a number of two-stage Phase II clinical trials designed to evaluate the safety and efficacy of ispinesib as monotherapy in the first- or second-line treatment of patients with different forms of cancer, ispinesib did not satisfy the criteria for advancement to Stage 2. Also, the methods we select to assess particular safety or efficacy parameters may not yield the same statistical precision in estimating our drug candidates effects as may other alternative methodologies. Even if we believe the data collected from clinical trials of our drug candidates are promising, these data may not be sufficient to support approval by the FDA or foreign regulatory authorities. Preclinical and clinical data can be interpreted in different ways. Accordingly, the FDA or foreign regulatory authorities could interpret these data in different ways than we or our partners do, which could delay, limit or prevent regulatory approval.

Administering any of our drug candidates or potential drug candidates may produce undesirable side effects, also known as adverse effects. Toxicities and adverse effects observed in preclinical studies for some compounds in a particular research and development program may also occur in preclinical studies or clinical trials of other compounds from the same program. Potential toxicity issues may arise from the effects of the active pharmaceutical ingredient (API) itself or from impurities or degradants that are present in the API or could form over time in the formulated drug candidate or the API. These toxicities or adverse effects could delay or prevent the filing of an IND (or a foreign equivalent) with respect to our drug candidates or potential drug candidates or cause us to cease clinical trials with respect to any drug candidate. In clinical trials, administering any of our drug candidates to humans may produce adverse effects. For example, in clinical trials of ispinesib, the most commonly observed dose-limiting toxicity was neutropenia, a decrease in the number of a certain type of white blood cell that results in an increase in susceptibility to infection. In a Phase I clinical trial of SB-743921, the dose-limiting toxicities observed were: prolonged neutropenia, with or without fever and with or without infection; elevated transaminases and hyperbilirubinemia, both of which are abnormalities of liver function; and hyponatremia, which is a low concentration of sodium in the blood. In a Phase I clinical trial of CK-1827452, intolerable doses of CK-1827452 were associated with complaints of chest discomfort, palpitations, dizziness and feeling hot, increases in heart rate, declines in blood pressure, electrocardiographic changes consistent with acute myocardial ischemia and transient rises in cardiac troponins I and T, which are markers of possible myocardial injury. If these or other adverse effects are severe or frequent enough to outweigh the potential efficacy of a drug candidate, our clinical trials for that drug candidate may be halted, delayed or interrupted. Furthermore, the FDA or other regulatory authorities could deny approval of that drug candidate for any or all targeted indications. The FDA, other regulatory authorities, our partners or we may suspend or terminate clinical trials with our drug candidates at any time. Even if one or more of our drug candidates were approved for sale as drugs, the occurrence of even a limited number of toxicities or adverse effects when used in large populations may cause the FDA to impose restrictions on, or stop, the further marketing of those drugs. Indications of potential adverse effects or toxicities which do not seem significant during the course of clinical trials may later turn out to actually constitute serious adverse effects or toxicities when a drug is used in large populations or for extended periods of time. Any failure or significant delay in completing preclinical studies or clinical trials for our drug candidates, or in receiving and maintaining regulatory approval for the sale of any resulting drugs, may significantly harm our business and negatively affect our stock price.

Clinical trials are expensive, time-consuming and subject to delay.

Clinical trials are subject to rigorous regulatory requirements and are very expensive, difficult and time-consuming to design and implement, especially in the heart failure and cancer indications that we are pursuing. According to industry studies, the entire drug development and testing process takes on average 12

Table of Contents

to 15 years, and the fully capitalized resource cost of new drug development averages approximately $800 million. However, individual clinical trials and individual drug candidates may incur a range of costs or time demands above or below this average. The length of time and number of trial sites and patients required for clinical trials vary substantially based on the type, complexity, novelty, intended use of the drug candidate and safety concerns. We estimate that clinical trials of our most advanced drug candidates will continue for several years, but they may take significantly longer to complete. The commencement and completion of our clinical trials could be delayed or prevented by many factors, including, but not limited to:

- delays in obtaining, or inability to obtain, regulatory or other approvals to commence and conduct clinical trials in the manner we or our partners deem necessary for the appropriate and timely development of our drug candidates and commercialization of any resulting drugs;

- delays in identifying and reaching agreement, or inability to identify and reach agreement, on acceptable terms with prospective clinical trial sites;

- delays or additional costs in developing, or inability to develop, appropriate formulations of our drug candidates for clinical trial use;

- slower than expected rates of patient recruitment and enrollment, including as a result of competition for patients with other clinical trials; limited numbers of patients that meet the enrollment criteria; patients , investigators or trial sites reluctance to agree to the requirements of a protocol; or the introduction of alternative therapies or drugs by others;

- for those drug candidates that are the subject of a strategic alliance, delays in reaching agreement with our partner as to appropriate development strategies;

- an investigational review board (IRB) may require changes to a protocol that then require approval from regulatory agencies and other IRBs, or regulatory authorities may require changes to a protocol that then require approval from the IRBs;

- for clinical trials conducted in foreign countries, the time and resources required to identify, interpret and comply with foreign regulatory requirements or changes in those requirements, and political instability or natural disasters occurring in those countries;

- lack of effectiveness of our drug candidates during clinical trials;

- unforeseen safety issues;

- inadequate supply of clinical trial materials;

- uncertain dosing issues;

- introduction of new therapies or changes in standards of practice or regulatory guidance that render our clinical trial endpoints or the targeting of our proposed indications obsolete;

- inability to monitor patients adequately during or after treatment; and

- inability or unwillingness of medical investigators to follow our clinical protocols.

Table of Contents

We do not know whether planned clinical trials will begin on time, or whether planned or currently ongoing clinical trials will need to be restructured or will be completed on schedule, if at all. Significant delays in clinical trials will impede our ability to commercialize our drug candidates and generate revenue and could significantly increase our development costs.

We have limited capacity to carry out our own clinical trials in connection with the development of our drug candidates and potential drug candidates and, to the extent we elect to develop a drug candidate without a strategic partner, we will need to expand our development capacity and will require additional funding.

The development of drug candidates is complicated, and we currently have limited resources to carry out drug development. Pursuant to our collaboration and option agreement with Amgen, we are responsible for conducting Phase IIa clinical development for our drug candidate CK-1827452. We cannot engage another strategic partner for CK-1827452, except in Japan, until Amgen elects not to exercise its option to conduct later-stage clinical development for CK-1827452 or its option expires. If Amgen elects not to exercise its option, we currently do not have an alternative strategic partner for that drug candidate. Pursuant to our amended collaboration and license agreement with GSK, we are responsible for conducting clinical development for our drug candidates ispinesib and SB-743921. Currently, we rely on GSK to conduct preclinical and clinical development for GSK-923295. We cannot engage another strategic partner for ispinesib or SB-743921 until GSK s option to conduct later-stage clinical development for those drug candidates expires. If GSK elects to terminate its development activities with respect to GSK-923295, or not to exercise its option to conduct later-stage clinical development for either of ispinesib or SB-743921, we currently do not have an alternative strategic partner for these drug candidates.

We are conducting clinical trials, at our expense, for CK-1827452, ispinesib and SB-743921. We rely on contractors for the manufacture and distribution of clinical supplies. If we continue to conduct clinical trials for any of these drug candidates without support from a strategic partner, we will need to develop additional skills, technical expertise and resources necessary to carry out these development activities on our own or through the use of other third parties, such as contract research organizations (CROs), and will incur significant costs.

We utilize CROs for our clinical trials within and outside of the United States. We do not have control over many aspects of our CROs activities, and cannot fully control the amount, timing or quality of resources that they devote to our programs. CROs may not assign as high a priority to our programs or pursue them as diligently as we would if we were undertaking these programs ourselves, and therefore may not complete their respective activities on schedule. CROs may also give higher priority to relationships with our competitors and potential competitors than to their relationships with us. Outside of the United States, we are particularly dependent on our CROs expertise in communicating with clinical trial sites and regulatory authorities and ensuring that our clinical trials and related activities and regulatory filings comply with applicable local laws. Our CRO s failure to carry out development activities on our behalf according to our requirements and the FDA s or other regulatory agencies standards and in accordance with applicable laws, or our failure to properly coordinate and manage these activities, could increase the cost of our operations and delay or prevent the development, approval and commercialization of our drug candidates. In addition, if a CRO fails to perform as agreed, our ability to collect damages may be contractually limited.

If we fail to develop the additional skills, technical expertise and resources necessary to carry out the development of our drug candidates or to effectively manage our CROs carrying out this development, or if our CROs fail to perform as agreed, the commercialization of our drug candidates will be delayed or prevented.

Table of Contents

If we fail to enter into and maintain successful strategic alliances for our drug candidates, potential drug candidates or research and development programs, we will have to reduce, delay or discontinue our advancement of those drug candidates, potential drug candidates and programs or increase our expenditures.

Our strategy for developing, manufacturing and commercializing our drug candidates and potential drug candidates currently requires us to enter into and successfully maintain strategic alliances with pharmaceutical companies or other industry participants to advance our programs and reduce our expenditures on each program. We currently have strategic alliances with Amgen relating to CK-1827452 and with GSK relating to ispinesib, SB-743921 and GSK-923295. Similarly, we expect to rely on one or more strategic partners to advance and develop our potential drug candidate directed towards the skeletal sarcomere and programs relating to skeletal muscle contractility and smooth muscle contractility. However, we may not be able to negotiate and enter into such strategic alliances on acceptable terms, if at all. If we are not able to maintain our existing strategic alliances or establish and maintain additional strategic alliances, we will have to limit the size or scope of, or delay or discontinue, one or more of our drug development programs or research programs or undertake and fund these programs ourselves. If we elect to continue to conduct any of these drug development programs or research programs on our own, we will need to obtain additional capital, which may not be available to us on acceptable terms, or at all.

If Amgen does not exercise its option for CK-1827452, we will have to reduce, delay or discontinue our development of CK-1827452 or increase our expenditures.

Our collaboration and option agreement with Amgen grants it an option relating to development and commercialization rights for CK-1827452. Amgen s option is exercisable during a defined period, the ending of which is dependent upon the satisfaction of certain conditions, primarily the delivery of Phase I and Phase IIa clinical trials data for CK-1827452 in accordance with an agreed development plan, the results of which reasonably support its progression into Phase IIb clinical development. Amgen can exercise its option during a defined period by paying us a specified option fee. We may be unable to provide to Amgen the necessary data to inform its decision as to whether to exercise its option within our anticipated timeframe, or at all, or Amgen may dispute whether we have provided sufficient information and data to require Amgen to decide whether to exercise its option. In addition, Amgen may elect not to exercise its option, irrespective of the data that we provide. If Amgen elects not to exercise its option for CK-1827452, we would have to seek an alternative strategic partner for the CK-1827452 development program. However, we may not be able to negotiate and enter into such a strategic alliance on acceptable terms, if at all. Without a strategic partner, we would have to limit the size or scope of, or delay or discontinue, development of CK-1827452 or undertake and fund that development ourselves. If we elect to continue to conduct development on our own, we will need to obtain additional capital, which may not be available to us on acceptable terms, or at all. Further, a decision by Amgen not to exercise its option could negatively affect our stock price.

If GSK does not exercise its option for either or both of ispinesib and SB-743921, we will have to reduce, delay or discontinue our development of those drug candidates or increase our expenditures.

Our collaboration and license agreement with GSK grants it an option relating to development and commercialization rights for either or both of ispinesib and SB-743921. GSK s option is exercisable until the end of 2008. GSK can exercise its option during a defined period by paying us a specified option fee. We may be unable to provide to GSK the necessary data to inform its decision as to whether to exercise its option within our anticipated timeframe, or at all. In addition, GSK may elect not to exercise its option, irrespective of the data that we provide. If GSK elects not to exercise its option for either or both of ispinesib and SB-743921, we would have to seek an alternative strategic partner for these programs. However, we may not

Table of Contents

be able to negotiate and enter into such strategic alliances on acceptable terms, if at all. Without a strategic partner, we would have to limit the size or scope of, or delay or discontinue, one or both of these programs or undertake and fund these programs ourselves. If we elect to continue to conduct either program on our own, we will need to obtain additional capital, which may not be available to us on acceptable terms, or at all. Further, a decision by GSK not to exercise its option could negatively affect our stock price.

We depend on GSK for the conduct, completion and funding of the clinical development and commercialization of GSK-923295.

Under our strategic alliance, GSK is responsible for the clinical development and obtaining and maintaining regulatory approval of our drug candidate GSK-923295 for cancer and other indications. GSK is responsible for filing applications with the FDA or other regulatory authorities for approval of GSK-923295 and will be the owner of any marketing approvals issued by the FDA or other regulatory authorities for GSK-923295. If the FDA or other regulatory authorities approve GSK-923295, GSK will also be responsible for the marketing and sale of the resulting drug, subject to our right to co-promote GSK-923295 in North America if we exercise our option to co-fund certain later-stage development activities for GSK-923295. However, even if we do exercise our option to co-fund the development of GSK-923295, we cannot control whether GSK will devote sufficient attention and resources to the clinical trials program for GSK-923295 or will proceed in an expeditious manner. In addition, even if the FDA or other regulatory agencies approve GSK-923295, GSK may elect not to proceed with the commercialization of the resulting drug. GSK generally has discretion to elect whether to pursue or abandon the development of GSK-923295 and may terminate our strategic alliance for any reason upon six months prior notice. These decisions are outside our control.

In particular, if the initial results of some of its early clinical trials do not meet GSK s expectations, GSK may elect to terminate further development of GSK-923295 or certain of the potential clinical trials for GSK-923295, even if the actual number of patients treated at that time is relatively small. If GSK abandons GSK-923295, it would result in a delay in or prevent us from commercializing GSK-923295, and would delay or prevent our ability to generate revenues. Disputes may arise between us and GSK, which may delay or cause the termination of any GSK-923295 clinical trials, result in significant litigation or arbitration, or cause GSK to act in a manner that is not in our best interest. If development of GSK-923295 does not progress for these or any other reasons, we would not receive further milestone payments from GSK with respect to GSK-923295. If GSK abandons development of GSK-923295 prior to regulatory approval or if it elects not to proceed with commercialization of the resulting drug following regulatory approval, we would have to seek a new partner for clinical development or commercialization, curtail or abandon that clinical development or commercialization, or undertake and fund the clinical development of GSK-923295 or commercialization of the resulting drug ourselves. If we seek a new partner but are unable to do so on acceptable terms, or at all, or do not have sufficient funds to conduct that development or commercialization ourselves, we would have to curtail or abandon that development or commercialization, which could harm our business.

The success of our development activities depends in part on the performance of our strategic partners, over which we have little or no control.

Our ability to commercialize drugs that we develop with our partners and that generate royalties from product sales depends on our partners abilities to assist us in establishing the safety and efficacy of our drug candidates, obtaining and maintaining regulatory approvals and achieving market acceptance of the drugs once commercialized. Our partners may elect to delay or terminate development of one or more drug candidates, independently develop drugs that could compete with ours or fail to commit sufficient resources to the marketing and distribution of drugs developed through their strategic alliances with us. Our partners

Table of Contents

may not proceed with the development and commercialization of our drug candidates with the same degree of urgency as we would because of other priorities they face. In particular, we are relying on GSK to conduct clinical development of GSK-923295. GSK may modify its plans to conduct that clinical development or may not proceed diligently with that clinical development. In addition, if GSK exercises its option with respect to either or both of ispinesib and SB-743921, or if Amgen exercises its option with respect to CK-1827452, they will then be responsible for the clinical development of those respective drug candidates. We do not control the clinical development being conducted or that may be conducted in the future by GSK or Amgen, including the timing of initiation, termination or completion of clinical trials, the analysis of data arising out of those clinical trials or the timing of release of complete data concerning those clinical trials, which may impact our ability to report on their results. If our partners fail to perform diligently, our potential for revenue from drugs developed through our strategic alliances, if any, could be dramatically reduced.

We have no manufacturing capacity and depend on our strategic partners or contract manufacturers to produce our clinical trial drug supplies for each of our drug candidates and potential drug candidates, and anticipate continued reliance on contract manufacturers for the development and commercialization of our potential drugs.

We do not currently operate manufacturing facilities for clinical or commercial production of our drug candidates or potential drug candidates. We have limited experience in drug formulation and manufacturing, and we lack the resources and the capabilities to manufacture any of our drug candidates on a clinical or commercial scale. As a result, we rely on GSK to conduct these activities for the ongoing clinical development of GSK-923295. For CK-1827452, ispinesib and SB-743921, we rely on a limited number of contract manufacturers, and, in particular, we rely on single-source contract manufacturers for the active pharmaceutical ingredient and the drug product supply for our clinical trials. We expect to rely on contract manufacturers to supply all future drug candidates for which we conduct clinical development. If any of our existing or future contract manufacturers fail to perform as agreed, it could delay clinical development or regulatory approval of our drug candidates or commercialization of our drugs, producing additional losses and depriving us of potential product revenues. In addition, if a contract manufacturer fails to perform as agreed, our ability to collect damages may be contractually limited.

Our drug candidates require precise, high quality manufacturing. The failure to achieve and maintain high manufacturing standards, including failure to detect or control anticipated or unanticipated manufacturing errors or the frequent occurrence of such errors, could result in patient injury or death, discontinuance or delay of on-going or planned clinical trials, delays or failures in product testing or delivery, cost overruns, product recalls or withdrawals and other problems that could seriously hurt our business. Contract drug manufacturers often encounter difficulties involving production yields, quality control and quality assurance, as well as shortages of qualified personnel. These manufacturers are subject to stringent regulatory requirements, including the FDA s current good manufacturing practices regulations and similar foreign laws and standards. Each contract manufacturer must pass a pre-approval inspection before we can obtain marketing approval for any of our drug candidates and following approval will be subject to ongoing periodic unannounced inspections by the FDA, the U.S. Drug Enforcement Agency and other regulatory agencies, to ensure strict compliance with current good manufacturing practices and other applicable government regulations and corresponding foreign laws and standards. We seek to ensure that our contract manufacturers comply fully with all applicable regulations, laws and standards. However, we do not have control over our contract manufacturers compliance with these regulations, laws and standards. If one of our contract manufacturers fails to pass its pre-approval inspection or maintain ongoing compliance at any time, the production of our drug candidates could be interrupted, resulting in delays or discontinuance of our clinical trials, additional costs and potentially lost revenues. In addition, failure of any third party manufacturers or us to comply with applicable regulations, including pre- or post-approval inspections and

the current good manufacturing practice requirements of the FDA or other comparable regulatory agencies, could result in sanctions being imposed on us. These sanctions could include fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delay, suspension or withdrawal of approvals, license revocation, product seizures or recalls, operational restrictions and criminal prosecutions, any of which could significantly and adversely affect our business.

In addition, our existing and future contract manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to successfully produce, store and distribute our drug candidates. If a natural disaster, business failure, strike or other difficulty occurs, we may be unable to replace these contract manufacturers in a timely or cost-effective manner and the production of our drug candidates would be interrupted, resulting in delays and additional costs.

Switching manufacturers or manufacturing sites may be difficult and time-consuming because the number of potential manufacturers is limited. In addition, before a drug from any replacement manufacturer or manufacturing site can be commercialized, the FDA must approve that site. That approval would require new testing and compliance inspections. A new manufacturer or manufacturing site also would have to be educated in, or develop substantially equivalent processes for, production of our drugs and drug candidates. It may be difficult or impossible to transfer certain elements of a manufacturing process to a new manufacturer or for us to find a replacement manufacturer on acceptable terms quickly, or at all, either of which would delay or prevent our ability to develop drug candidates and commercialize any resulting drugs.

Our focus to date on the discovery and development of drug candidates directed against specific proteins and pathways within the cytoskeleton is unproven, and we do not know whether we will be able to develop any drug candidates of commercial value.

To date, we have focused our drug discovery and development activities on the cytoskeleton, including in the areas of muscle biology and oncology. While a number of commonly used drugs and a growing body of research validate the importance of the cytoskeleton in the origin and progression of a number of diseases, no existing drugs specifically and directly interact with the proteins and the pathways that our drug candidates seek to modulate. As a result, we cannot be certain that our drug candidates and potential drug candidates will appropriately modulate the targeted proteins and pathways or produce commercially viable drugs that safely and effectively treat heart failure, cancer or other diseases, or that the results we have seen in preclinical models will translate into similar results in humans. In addition, even if we are successful in developing and receiving regulatory approval for a commercially viable drug for the treatment of a particular disease, we cannot be certain that we will also be able to develop and receive regulatory approval for drug candidates for the treatment of other forms of that disease or other diseases. If we or our partners fail to develop and commercialize our drug candidates, we will not achieve commercial success, which would materially harm our business.

Our success depends substantially upon our ability to obtain and maintain intellectual property protection relating to our drug candidates and research technologies.

We own or hold exclusive licenses to a number of U.S. and foreign patents and patent applications directed to our drug candidates and research technologies. Our success depends on our ability to obtain patent protection both in the United States and in other countries for our drug candidates, their methods of manufacture and use, and our technologies. Our ability to protect our drug candidates and technologies from unauthorized or infringing use by third parties depends substantially on our ability to obtain and enforce our patents. If our issued patents and patent applications, if granted, do not adequately describe, enable or otherwise provide coverage of our technologies and drug candidates, including CK-1827452, ispinesib,

Table of Contents

SB-743921 and GSK-923295, we would not be able to exclude others from developing or commercializing these drug candidates. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means may not adequately protect our rights or permit us to gain or keep our competitive advantage.

Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the claim scope of these patents, our ability to enforce our existing patents and to obtain and enforce patents that may issue from any pending or future patent applications is uncertain and involves complex legal, scientific and factual questions. The standards which the U.S. Patent and Trademark Office (PTO) and its foreign counterparts use to grant patents are not always applied predictably or uniformly and are subject to change. To date, no consistent policy has emerged regarding the breadth of claims allowed in biotechnology and pharmaceutical patents. Thus, we cannot be sure that any patents will issue from any pending or future patent applications owned by or licensed to us. Even if patents do issue, we cannot be sure that the claims of these patents will be held valid or enforceable by a court of law, will provide us with any significant protection against competitive products, or will afford us a commercial advantage over competitive products. For example:

- we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents;
- we or our licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- some or all of our or our licensors pending patent applications may not result in issued patents or the issued claims may be narrower than initially anticipated;
- our and our licensors issued patents may not provide a basis for commercially viable drugs or therapies, or may not provide us with any competitive advantages, or may be challenged and invalidated by third parties;
- our or our licensors patent applications or patents may be subject to interference, opposition or similar administrative proceedings;
- we may not develop additional proprietary technologies or drug candidates that are patentable; or
- the patents of others may prevent us or our partners from discovering, developing or commercializing our drug candidates.

Patent protection is afforded on a country by country basis. The laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States. Many companies have encountered significant difficulties in protecting and defending intellectual property rights in foreign jurisdictions. Some of our development efforts are performed in countries outside of the United States through third party contractors. We may not be able to effectively monitor and assess intellectual property developed by these contractors; therefore, we may not appropriately protect this intellectual property and could thus lose valuable intellectual property rights. In addition, the legal protection afforded to inventors and owners of intellectual property in countries outside of the United States may not be as protective of intellectual property rights as in the United States. Therefore, we may be unable to acquire and protect

Table of Contents

intellectual property developed by these contractors to the same extent as if these development activities were being conducted in the United States. If we encounter difficulties in protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed.

Under our license agreement with the University of California and Stanford University, we have obtained a license to certain United States patents and pending United States and foreign patent applications relating to certain of our research activities. If we fail to fulfill our obligations under this license agreement, including certain diligence obligations, this agreement may be terminated, in which case we would no longer have a license to these patents or to future patents that may issue from the pending applications. This may impair our ability to continue to practice the research methods covered by the issued patents, which could harm our business. Alternatively, our license rights may become non-exclusive, which would allow the University of California and Stanford University to grant third parties the right to practice those patents.

We rely on intellectual property assignment agreements with our corporate partners, employees, consultants, scientific advisors and other collaborators to grant us ownership of new intellectual property that is developed. These agreements may not result in the effective assignment to us of that intellectual property. As a result, our ownership of key intellectual property could be compromised.

Changes in either the patent laws or their interpretation in the United States or other countries may diminish the value of our intellectual property or our ability to obtain patents. For example, the U.S. Senate is currently considering a bill that could change U.S. law regarding, among other things, post-grant review of issued patents and the calculation of damages once patent infringement has been determined by a court of law. If enacted into law, these provisions could severely weaken patent protection in the United States. Recently, the PTO adopted new rules that were to become effective on November 1, 2007, regarding processes for obtaining patents in the United States. However, a permanent injunction preventing implementation of the new rules has been issued. This decision is now being appealed. The new rules are numerous and complex and, if made effective, generally are expected to make it more difficult for patent applicants to obtain patents, especially with regard to pharmaceutical products and processes. If these rules changes become effective, they would likely make it more difficult for us and others to obtain patent protection in the United States for any future drug candidates.

If one or more products resulting from our drug candidates is approved for sale by the FDA and we do not have adequate intellectual property protection for those products, competitors could duplicate them for approval and sale in the United Sates without repeating the extensive testing required of us or our partners to obtain FDA approval. Regardless of any patent protection, the FDA is prohibited under current law from approving any generic version of a product for at least five years after it has approved that product. When that period expires, or if it is altered, the FDA could approve a generic version of our product unless we have patent protection sufficient for us to block the manufacture, use or sale of that generic version in the United States. Without sufficient patent protection, the applicant for a generic version of our product would only be required to conduct a relatively inexpensive study to show that its product is bioequivalent to our product, and would not have to repeat the clinical trials that we or our partners conducted to demonstrate that the product is safe and effective. In the absence of adequate patent protection in other countries, competitors may similarly be able to obtain regulatory approval in those countries of products that duplicate our products.

We also rely on trade secrets to protect our technology, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. While we endeavor to use reasonable efforts to protect our trade secrets, our or our partners employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our information to competitors. In addition, confidentiality agreements, if any, executed by those individuals may not be enforceable or provide

Table of Contents

meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure. If we were to pursue a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time-consuming, and the outcome would be unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, if our competitors independently develop information equivalent to our trade secrets, it will be more difficult for us to enforce our rights and our business could be harmed.

If we are not able to defend the patent or trade secret protection position of our technologies and drug candidates, then we will not be able to exclude competitors from developing or marketing competing drugs, and we may not generate enough revenue from product sales to justify the cost of development of our drugs and to achieve or maintain profitability.

If we are sued for infringing third party intellectual property rights, it will be costly and time-consuming, and an unfavorable outcome would have a significant adverse effect on our business.

Our ability to commercialize drugs depends on our ability to use, manufacture and sell those drugs without infringing the patents or other proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the therapeutic areas in which we are developing drug candidates and exploring for new potential drug candidates. In addition, because patent applications can take several years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that our drug candidates may infringe. There may also be existing patents that our drug candidates may inadvertently infringe.

Currently, we are aware of an issued U.S. patent and at least one pending U.S. patent application assigned to Curis, Inc. (Curis), relating to certain compounds in the quinazolinone class. Ispinesib falls into this class of compounds. The Curis U.S. patent claims a method of use for inhibiting signaling by what is called the hedgehog pathway using certain quinazolinone compounds. Curis also has pending applications in Europe, Japan, Australia and Canada with claims covering certain quinazolinone compounds, compositions thereof and/or methods of their use. Two of the Australian applications have been allowed and two of the European applications have been granted. We have opposed the granting of certain of these patents to Curis in Europe and in Australia. One of the European patents which we opposed was recently revoked and is no longer valid in Europe. Curis has appealed this decision.

Curis or a third party may assert that the manufacture, use, importation or sale of ispinesib may infringe one or more of these patents. We believe that we have valid defenses against the issued U.S. patent owned by Curis if it were to be asserted against us. However, we cannot guarantee that a court would find these defenses valid or that any additional oppositions would be successful. We have not attempted to obtain a license to these patents. If we decide to seek a license to these patents, we cannot guarantee that such a license would be available on acceptable terms, if at all.

Other future products of ours may be impacted by patents of companies engaged in competitive programs with significantly greater resources (such as Bayer AG, Merck & Co., Inc., Merck GmbH, Eli Lilly and Company, Bristol-Myers Squibb, Array Biopharma Inc., ArQule, Inc., and AstraZeneca). Further development of these products could be impacted by these patents and result in significant legal fees.

Table of Contents

If a third party claims that our actions infringe on its patents or other proprietary rights, we could face a number of issues that could seriously harm our competitive position, including, but not limited to:

- infringement and other intellectual property claims that, even if meritless, can be costly and time-consuming to litigate, delay the regulatory approval process and divert management s attention from our core business strategy;
- substantial damages for past infringement which we may have to pay if a court determines that our drugs or technologies infringe a competitor s patent or other proprietary rights;
- a court prohibiting us from selling or licensing our drugs or technologies unless the holder licenses the patent or other proprietary rights to us, which it is not required to do; and
- if a license is available from a holder, we may have to pay substantial royalties or grant cross licenses to our patents or other proprietary rights.

If any of these events occur, it could significantly harm our business and negatively affect our stock price.

We may become involved in disputes with our strategic partners over intellectual property ownership, and publications by our research collaborators and clinical investigators could impair our ability to obtain patent protection or protect our proprietary information, which, in either case, would have a significant impact on our business.

Inventions discovered under our strategic alliance agreements become jointly owned by our strategic partners and us in some cases, and the exclusive property of one of us in other cases. Under some circumstances, it may be difficult to determine who owns a particular invention, or whether it is jointly owned, and disputes could arise regarding ownership of those inventions. These disputes could be costly and time-consuming, and an unfavorable outcome would have a significant adverse effect on our business if we were not able to protect or license rights to these inventions. In addition, our research collaborators and clinical investigators generally have contractual rights to publish data arising from their work, subject to our prior review. Publications by our research collaborators and clinical investigators relating to our research and development programs, either with our permission or in contravention of their agreements with us, could benefit our current or potential competitors and may impair our ability to obtain patent protection or protect our proprietary information, which could significantly harm our business.

We may be subject to claims that we or our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending these claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential drugs, which could significantly harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and distract management.

Table of Contents

To the extent we elect to fund the development of a drug candidate or the commercialization of a drug at our expense, we will need substantial additional funding.

The discovery, development and commercialization of new drugs for the treatment of a wide array of diseases is costly. As a result, to the extent we elect to fund the development of a drug candidate or the commercialization of a drug at our expense, we will need to raise additional capital to:

expand our research and development and technologies;

fund clinical trials and seek regulatory approvals;

build or access manufacturing and commercialization capabilities;

implement additional internal systems and infrastructure;

maintain, defend and expand the scope of our intellectual property; and

hire and support additional management and scientific personnel.

Our future funding requirements will depend on many factors, including, but not limited to:

the rate of progress and cost of our clinical trials and other research and development activities;

the costs and timing of seeking and obtaining regulatory approvals;

the costs associated with establishing manufacturing and commercialization capabilities;

the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

the costs of acquiring or investing in businesses, products and technologies;

the effect of competing technological and market developments; and

the payment and other terms and timing of any strategic alliance, licensing or other arrangements that we may establish.

Until we can generate a sufficient amount of product revenue to finance our cash requirements, which we may never do, we expect to continue to finance our future cash needs primarily through public or private equity offerings, debt financings and strategic alliances. We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are not able to secure additional funding when needed, we may have to delay, reduce the scope of or eliminate one or more of our clinical trials or research and development programs or future commercialization initiatives.

Table of Contents

We expect to expand our development, clinical research, sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to have significant growth in expenditures, the number of our employees and the scope of our operations, in particular with respect to those drug candidates that we elect to develop or commercialize independently or together with a partner. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

We may not be able to successfully scale-up manufacture of our drug candidates in sufficient quality and quantity, which would delay or prevent us from developing our drug candidates and commercializing resulting approved drugs, if any.

To date, our drug candidates have been manufactured in small quantities for preclinical studies and early-stage clinical trials. In order to conduct larger scale or late-stage clinical trials for a drug candidate and for commercialization of the resulting drug if that drug candidate is approved for sale, we will need to manufacture it in larger quantities. We may not be able to successfully increase the manufacturing capacity for any of our drug candidates, whether in collaboration with third-party manufacturers or on our own, in a timely or cost-effective manner or at all. If a contract manufacturer makes improvements in the manufacturing process for our drug candidates, we may not own, or may have to share, the intellectual property rights to those improvements. Significant scale-up of manufacturing may require additional validation studies, which are costly and which the FDA must review and approve. In addition, quality issues may arise during those scale-up activities because of the inherent properties of a drug candidate itself or of a drug candidate in combination with other components added during the manufacturing and packaging process or during shipping and storage of the finished product or active pharmaceutical ingredients. If we are unable to successfully scale-up manufacture of any of our drug candidates in sufficient quality and quantity, the development of that drug candidate and regulatory approval or commercial launch for any resulting drugs may be delayed or there may be a shortage in supply, which could significantly harm our business.

We currently have no marketing or sales staff, and if we are unable to enter into or maintain strategic alliances with marketing partners or if we are unable to develop our own sales and marketing capabilities, we may not be successful in commercializing our potential drugs.

We currently have no sales, marketing or distribution capabilities. We plan to commercialize ourselves drugs that can be effectively marketed and sold in concentrated markets that do not require a large sales force to be competitive. To achieve this goal, we will need to establish our own specialized sales force and marketing organization with technical expertise and with supporting distribution capabilities. Developing such an organization is expensive and time-consuming and could delay a product launch. In addition, we may not be able to develop this capacity efficiently, cost-effectively or at all, which could make us unable to commercialize our drugs. If we determine not to market on our drugs on our own, we will depend on strategic alliances with third parties, such as GSK and Amgen, which have established distribution systems and direct sales forces to commercialize them. If we are unable to enter into such arrangements on acceptable terms, we may not be able to successfully commercialize these drugs. To the extent that we are not successful in commercializing any drugs ourselves or through a strategic alliance, our product revenues and business will suffer and the price of our common stock could decrease.

Table of Contents

Our failure to attract and retain skilled personnel could impair our drug development and commercialization activities.

Our business depends on the performance of our senior management and key scientific and technical personnel. The loss of the services of any member of our senior management or key scientific or technical staff may significantly delay or prevent the achievement of drug development and other business objectives by diverting management s attention to transition matters and identifying suitable replacements. We also rely on consultants and advisors to assist us in formulating our research and development strategy. All of our consultants and advisors are either self-employed or employed by other organizations, and they may have conflicts of interest or other commitments, such as consulting or advisory contracts with other organizations, that may affect their ability to contribute to us. In addition, if and as our business grows, we will need to recruit additional executive management and scientific and technical personnel. There is currently intense competition for skilled executives and employees with relevant scientific and technical expertise, and this competition is likely to continue. Our inability to attract and retain sufficient scientific, technical and managerial personnel could limit or delay our product development activities, which would adversely affect the development of our drug candidates and commercialization of our potential drugs and growth of our business.

Our workforce reductions in September 2008 and any future workforce and expense reductions may have an adverse impact on our internal programs and our ability to hire and retain skilled personnel.

In September 2008, we reduced our workforce by approximately twenty-nine percent in order to reduce expenses and to focus on research activities in our muscle biology programs and advancing drug candidates in our clinical pipeline. These headcount reductions and the cost control measures we have implemented may negatively affect our productivity and limit our research and development activities. For example, as part of this strategic restructuring, we are discontinuing our early research activities in oncology. Our future success will depend in large part upon our ability to attract and retain highly skilled personnel. We may have difficulty retaining and attracting such personnel as a result of a perceived risk of future workforce reductions. In light of our continued need for funding and cost control, we may be required to implement future workforce and expense reductions, which could further limit our research and development activities. In addition, the implementation of any additional workforce or expense reduction programs may divert the efforts of our management team and other key employees, which could adversely affect our business.

Risks Related To Our Industry

Our competitors may develop drugs that are less expensive, safer or more effective than ours, which may diminish or eliminate the commercial success of any drugs that we may commercialize.

We compete with companies that are also developing drug candidates that focus on the cytoskeleton, as well as companies that have developed drugs or are developing alternative drug candidates for cardiovascular diseases, cancer and other diseases for which our compounds may be useful treatments. For example, if CK-1827452 or any other of our compounds is approved for marketing by the FDA for heart failure, that compound could compete against current generically available therapies, such as milrinone, dobutamine or digoxin or newer marketed drugs such as nesiritide, as well as potentially against other novel drug candidates in development, such as levosimendan, which is marketed by Abbott Laboratories in a number of countries outside of the United States; istaroxamine, which is being developed by Debiopharm Group; rolofylline, which is being developed by Merck & Co. Inc.; bucindolol, which is being developed by ARCA biopharma, Inc.; and CD-NP, which is being developed by Nile Therapeutics, Inc. In addition, there are a number of medical devices being developed for the potential treatment of heart failure.

Table of Contents

Similarly, if approved for marketing by the FDA, depending on the approved clinical indication, our anti-cancer drug candidates such as ispinesib, SB-743921 and GSK-923295 could compete against existing cancer treatments such as paclitaxel, docetaxel, vincristine, vinorelbine, navelbine, ixabepilone and potentially against other novel anti-cancer drug candidates that are currently in development such as those that are reformulated taxanes, other tubulin binding compounds or epothilones. We are also aware that Merck & Co., Inc., Eli Lilly and Company, Bristol-Myers Squibb, Array Biopharma Inc., ArQule, Inc. and others are conducting research and development focused on kinesin spindle protein and other mitotic kinesins. In addition, Bristol-Myers Squibb, Merck & Co., Inc., Novartis, Genentech, AstraZeneca, Hoffman-La Roche Ltd., Eisai, Inc. and other pharmaceutical and biopharmaceutical companies are developing other approaches to inhibiting mitosis.

Our competitors may:

develop drug candidates and market drugs that are less expensive or more effective than our future drugs;

commercialize competing drugs before we or our partners can launch any drugs developed from our drug candidates;

hold or obtain proprietary rights that could prevent us from commercializing our products;

initiate or withstand substantial price competition more successfully than we can;

more successfully recruit skilled scientific workers from the limited pool of available talent;

more effectively negotiate third-party licenses and strategic alliances;

take advantage of acquisition or other opportunities more readily than we can;

develop drug candidates and market drugs that increase the levels of safety or efficacy that our drug candidates will need to show in order to obtain regulatory approval; or

introduce therapies or market drugs that render the market opportunity for our potential drugs obsolete.

We will compete for market share against large pharmaceutical and biotechnology companies and smaller companies that are collaborating with larger pharmaceutical companies, new companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors, either alone or together with their partners, may develop new drug candidates that will compete with ours. These competitors may, and in certain cases do, operate larger research and development programs or have substantially greater financial resources than we do. Our competitors may also have significantly greater experience in:

developing drug candidates;

undertaking preclinical testing and clinical trials;

building relationships with key customers and opinion-leading physicians;

Table of Contents

obtaining and maintaining FDA and other regulatory approvals of drug candidates;

formulating and manufacturing drugs; and

launching, marketing and selling drugs.

If our competitors market drugs that are less expensive, safer or more efficacious than our potential drugs, or that reach the market sooner than our potential drugs, we may not achieve commercial success. In addition, the life sciences industry is characterized by rapid technological change. Because our research approach integrates many technologies, it may be difficult for us to stay abreast of the rapid changes in each technology. If we fail to stay at the forefront of technological change we may be unable to compete effectively. Our competitors may render our technologies obsolete by improving existing technological approaches or the development of new or different approaches, potentially eliminating the advantages in our drug discovery process that we believe we derive from our research approach and proprietary technologies.

The regulatory approval process is expensive, time-consuming and uncertain and may prevent our partners or us from obtaining approvals to commercialize some or all of our drug candidates.

The research, testing, manufacturing, selling and marketing of drugs are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, which regulations differ from country to country. Neither we nor our partners are permitted to market our potential drugs in the United States until we receive approval of a new drug application (NDA) from the FDA. Neither we nor our partners have received marketing approval for any of Cytokinetics drug candidates.

Obtaining NDA approval can be a lengthy, expensive and uncertain process. In addition, failure to comply with the FDA and other applicable foreign and U.S. regulatory requirements may subject us to administrative or judicially imposed sanctions. These include warning letters, civil and criminal penalties, injunctions, product seizure or detention, product recalls, total or partial suspension of production, and refusal to approve pending NDAs or supplements to approved NDAs.

Regulatory approval of an NDA or NDA supplement is never guaranteed, and the approval process typically takes several years and is extremely expensive. The FDA and foreign regulatory agencies also have substantial discretion in the drug approval process. Despite the time and efforts exerted, failure can occur at any stage, and we could encounter problems that cause us to abandon clinical trials or to repeat or perform additional preclinical testing and clinical trials. The number and focus of preclinical studies and clinical trials that will be required for approval by the FDA and foreign regulatory agencies varies depending on the drug candidate, the disease or condition that the drug candidate is designed to address, and the regulations applicable to any particular drug candidate. The FDA and foreign regulatory agencies can delay, limit or deny approval of a drug candidate for many reasons, including, but not limited to:

they might determine that a drug candidate is not be safe or effective;

they might not find the data from preclinical testing and clinical trials sufficient;

they might not approve our or our contract manufacturer s processes or facilities; or

they might change their approval policies or adopt new regulations.

Table of Contents

Even if we receive regulatory approval to manufacture and sell a drug in a particular regulatory jurisdiction, other jurisdictions regulatory authorities may not approve that drug for manufacture and sale. If we or our partners fail to receive and maintain regulatory approval for the sale of any drugs resulting from our drug candidates, it would significantly harm our business and negatively affect our stock price.

If we or our partners receive regulatory approval for our drug candidates, we will also be subject to ongoing obligations to and continued regulatory review by the FDA and foreign regulatory agencies, such as continued safety reporting requirements, and we may also be subject to additional post-marketing obligations, all of which may result in significant expense and limit our ability to commercialize our potential drugs.

Any regulatory approvals that we or our partners receive for our drug candidates may be subject to limitations on the indicated uses for which the drug may be marketed or require potentially costly post-marketing follow-up studies. In addition, if the FDA or foreign regulatory agencies approves any of our drug candidates, the labeling, packaging, adverse event reporting, storage, advertising, promotion and record-keeping for the drug will be subject to extensive regulatory requirements. The subsequent discovery of previously unknown problems with the drug, including adverse events of unanticipated severity or frequency, or the discovery that adverse effects or toxicities observed in preclinical research or clinical trials that were believed to be minor actually constitute much more serious problems, may result in restrictions on the marketing of the drug or withdrawal of the drug from the market.

The policies of the FDA and foreign regulatory agencies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our drug candidates. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we might not be permitted to market our drugs and our business would suffer.

If physicians and patients do not accept our drugs, we may be unable to generate significant revenue, if any.

Even if our drug candidates obtain regulatory approval, the resulting drugs, if any, may not gain market acceptance among physicians, healthcare payors, patients and the medical community. Even if the clinical safety and efficacy of drugs developed from our drug candidates are established for purposes of approval, physicians may elect not to recommend these drugs for a variety of reasons including, but not limited to:

timing of market introduction of competitive drugs;

clinical safety and efficacy of alternative drugs or treatments;

cost-effectiveness;

availability of coverage and reimbursement from health maintenance organizations and other third-party payors;

convenience and ease of administration;

prevalence and severity of adverse side effects;

Table of Contents

other potential disadvantages relative to alternative treatment methods; or

insufficient marketing and distribution support.

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

The coverage and reimbursement status of newly approved drugs is uncertain and failure to obtain adequate coverage and reimbursement could limit our ability to market any drugs we may develop and decrease our ability to generate revenue.

Even if one or more of our drugs is approved for sale, the commercial success of our drugs in both domestic and international markets will be substantially dependent on whether third-party coverage and reimbursement is available for our drugs by the medical profession for use by their patients, which is highly uncertain. Medicare, Medicaid, health maintenance organizations and other third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement of new drugs, and, as a result, they may not cover or provide adequate payment for our drugs. They may not view our drugs as cost-effective and reimbursement may not be available to consumers or may be insufficient to allow our drugs to be marketed on a competitive basis. If we are unable to obtain adequate coverage and reimbursement for our drugs, our ability to generate revenue may be adversely affected. Likewise, legislative or regulatory efforts to control or reduce healthcare costs or reform government healthcare programs could result in lower prices or rejection of coverage and reimbursement for our potential drugs. Changes in coverage and reimbursement policies or healthcare cost containment initiatives that limit or restrict reimbursement for our drugs may cause our revenue to decline.

We may be subject to costly product liability or other liability claims and may not be able to obtain adequate insurance.

The use of our drug candidates in clinical trials may result in adverse effects. We currently maintain product liability insurance. We cannot predict all the possible harms or adverse effects that may result from our clinical trials. We may not have sufficient resources to pay for any liabilities resulting from a personal injury or other claim excluded from, or beyond the limit of, our insurance coverage. Our insurance does not cover third parties negligence or malpractice, and our clinical investigators and sites may have inadequate insurance or none at all. In addition, in order to conduct clinical trials or otherwise carry out our business, we may have to contractually assume liabilities for which we may not be insured. If we are unable to look to our own or a third party s insurance to pay claims against us, we may have to pay any arising costs and damages ourselves, which may be substantial.

In addition, if we commercially launch drugs based on our drug candidates, we will face even greater exposure to product liability claims. This risk exists even with respect to those drugs that are approved for commercial sale by the FDA and foreign regulatory agencies and manufactured in licensed and regulated facilities. We intend to secure limited product liability insurance coverage, but may not be able to obtain such insurance on acceptable terms with adequate coverage, or at reasonable costs. There is also a risk that third parties that we have agreed to indemnify could incur liability, or that third parties that have agreed to indemnify us do not fulfill their obligations. Even if we are ultimately successful in product liability litigation, the litigation would consume substantial amounts of our financial and managerial resources and may create adverse publicity, all of which would impair our ability to generate sales of the affected product as well as our other potential drugs. Moreover, product recalls may be issued at our discretion or at the direction of the FDA and foreign regulatory agencies, other governmental agencies or other companies having

Table of Contents

regulatory control for drug sales. If product recalls occur, they are generally expensive and often have an adverse effect on the reputation of the drugs being recalled and of the drug s developer or manufacturer.

Responding to any claims relating to improper handling, storage or disposal of the hazardous chemicals and radioactive and biological materials we use in our business could be time-consuming and costly.

Our research and development processes involve the controlled use of hazardous materials, including chemicals and radioactive and biological materials. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from those materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials. Compliance with environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and production activities.

In addition, our partners may use hazardous materials in connection with our strategic alliances. To our knowledge, their work is performed in accordance with applicable biosafety regulations. In the event of a lawsuit or investigation, however, we could be held responsible for any injury caused to persons or property by exposure to, or release of, these hazardous materials used by these parties. Further, we may be required to indemnify our partners against damages and other liabilities arising out of our development activities or drugs produced in connection with these strategic alliances, which could be costly and time-consuming and distract management.

Our facilities in California are located near an earthquake fault, and an earthquake or other types of natural disasters, catastrophic events or resource shortages could disrupt our operations and adversely affect our results.

All of our facilities and our important documents and records, such as hard copies of our laboratory books and records for our drug candidates and compounds and our electronic business records, are located in our corporate headquarters at a single location in South San Francisco, California near active earthquake zones. In the event of a natural disaster, such as an earthquake or flood, a catastrophic event such as a disease pandemic or terrorist attack or localized extended outages of critical utilities or transportation systems, we do not have a formal business continuity or disaster recovery plan, and could therefore experience a significant business interruption. Our partners and other third parties on which we rely may also be subject to business interruptions from such events. In addition, California from time to time has experienced shortages of water, electric power and natural gas. Future shortages and conservation measures could disrupt our operations and cause expense, thus adversely affecting our business and financial results.

Risks Related To an Investment in Our Securities

We expect that our stock price will fluctuate significantly, and you may not be able to resell your shares at or at or above your investment price.

The stock market, particularly in recent months and years, has experienced significant volatility, particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks, which often does not relate to the operating performance of the companies represented by the stock. Factors that could cause volatility in the market price of our common stock include, but are not limited to:

Table of Contents

results from, delays in, or discontinuation of, any of the clinical trials for our drug candidates for the potential treatment of heart failure or cancer, including the current and proposed clinical trials for CK-1827452 for heart failure, ispinesib for breast cancer and leukemia, SB-743921 for Hodgkin and non-Hodgkin lymphoma, and GSK-923295 for cancer, and including delays resulting from slower than expected or suspended patient enrollment or discontinuations resulting from a failure to meet pre-defined clinical end-points;

announcements concerning our strategic alliances with Amgen, GSK or future strategic alliances, including, but not limited to, announcements concerning Amgen s option relating to CK-1827452 and GSK s option relating to either or both of ispinesib and SB-743921;

announcements concerning clinical trials;

failure or delays in entering additional drug candidates into clinical trials;

failure or discontinuation of any of our research programs;

issuance of new or changed securities analysts reports or recommendations;

failure or delay in establishing new strategic alliances, or the terms of those alliances;

market conditions in the pharmaceutical, biotechnology and other healthcare related sectors;

actual or anticipated fluctuations in our quarterly financial and operating results;

developments or disputes concerning our intellectual property or other proprietary rights;

introduction of technological innovations or new commercial products by us or our competitors;

issues in manufacturing our drug candidates or drugs;

market acceptance of our drugs;

third-party healthcare coverage and reimbursement policies;

FDA or other U.S. or foreign regulatory actions affecting us or our industry;

litigation or public concern about the safety of our drug candidates or drugs;

additions or departures of key personnel; or

volatility in the stock prices of other companies in our industry or in the stock market generally.

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

Table of Contents

Our common stock is listed for quotation on the NASDAQ Global Market (NASDAQ). To keep our listing, we must meet NASDAQ s listing maintenance standards. If we are unable to continue to meet NASDAQ s listing maintenance standards, our common stock could be delisted and would need to be traded in the non-NASDAQ, over-the-counter market. If our common stock were delisted, it may be more difficult to trade, or get an accurate market value of, our common stock. This could severely limit our stockholders ability to sell our common stock in the secondary market. A delisting would also make it more difficult for us to raise funds through the sale of our securities.

If the ownership of our common stock continues to be highly concentrated, it may prevent you and other stockholders from influencing significant corporate decisions and may result in conflicts of interest that could cause our stock price to decline.

As of October 31, 2008, our executive officers, directors and their affiliates beneficially owned or controlled approximately 25.4% of the outstanding shares of our common stock (after giving effect to the exercise of all outstanding vested and unvested options and warrants). Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of us, even if such a change of control would benefit our other stockholders. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors perception that conflicts of interest may exist or arise.

Evolving regulation of corporate governance and public disclosure may result in additional expenses and continuing uncertainty.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new Securities and Exchange Commission (SEC) regulations and NASDAQ Stock Market LLC rules are creating uncertainty for public companies. We are presently evaluating and monitoring developments with respect to new and proposed rules and cannot predict or estimate the amount of the additional costs we may incur or the timing of these costs. For example, compliance with the internal control requirements of Section 404 of the Sarbanes-Oxley Act has to date required the commitment of significant resources to document and test the adequacy of our internal control over financial reporting. While our assessment, testing and evaluation of the design and operating effectiveness of our internal control over financial reporting resulted in our conclusion that, as of December 31, 2007, our internal control over financial reporting was effective, we can provide no assurance as to conclusions of management or by our independent registered public accounting firm with respect to the effectiveness of our internal control over financial reporting in the future. These new or changed laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We are committed to maintaining high standards of corporate governance and public disclosure. As a result, we intend to invest the resources necessary to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies, due to ambiguities related to practice or otherwise, regulatory authorities may initiate legal proceedings against us, which could be costly and time-consuming, and our reputation and business may be harmed.

Table of Contents

Volatility in the stock prices of other companies may contribute to volatility in our stock price.

The stock market in general, and NASDAQ and the market for technology companies in particular, have experienced significant price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Further, there has been particular volatility in the market prices of securities of early stage and development stage life sciences companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company s securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management s attention and resources, and could harm our reputation and business.

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

We have paid no cash dividends on any of our classes of capital stock to date and we currently intend to retain our future earnings, if any, to fund the development and growth of our businesses. In addition, the terms of existing or any future debts may preclude us from paying these dividends.

Our common stock is thinly traded and there may not be an active, liquid trading market for our common stock.

There is no guarantee that an active trading market for our common stock will be maintained on NASDAQ, or that the volume of trading will be sufficient to allow for timely trades. Investors may not be able to sell their shares quickly or at the latest market price if trading in our stock is not active or if trading volume is limited. In addition, if trading volume in our common stock is limited, trades of relatively small numbers of shares may have a disproportionate effect on the market price of our common stock.

Risks Related To Our Financing Vehicles and Investments

Our committed equity financing facility with Kingsbridge may not be available to us if we elect to make a draw down, may require us to make additional blackout or other payments to Kingsbridge, and may result in dilution to our stockholders.

In October 2007, we entered into a committed equity financing facility with Kingsbridge. This committed equity financing facility entitles us to sell and obligates Kingsbridge to purchase, from time to time over a period of three years, shares of our common stock for cash consideration up to an aggregate of $75.0 million, subject to certain conditions and restrictions. Kingsbridge will not be obligated to purchase shares under this committed equity financing facility unless certain conditions are met, which include a minimum price for our common stock; the accuracy of representations and warranties made to Kingsbridge; compliance with laws; effectiveness of the registration statement registering for resale the shares of common stock to be issued in connection with this committed equity financing facility; and the continued listing of our stock on NASDAQ. In addition, Kingsbridge is permitted to terminate this committed equity financing facility if it determines that a material and adverse event has occurred affecting our business, operations, properties or financial condition and if such condition continues for a period of 10 days from the date Kingsbridge provides us notice of such material and adverse event. If we are unable to access funds through this committed equity financing facility, or if Kingsbridge terminates this committed equity financing facility, we may be unable to access capital on favorable terms or at all.

Table of Contents

We are entitled, in certain circumstances, to deliver a blackout notice to Kingsbridge to suspend the use of the resale registration statement and prohibit Kingsbridge from selling shares under the resale registration statement. If we deliver a blackout notice in the 15 trading days following the settlement of a draw down, or if the registration statement is not effective in circumstances not permitted by the agreement, then we must make a payment to Kingsbridge, or issue Kingsbridge additional shares in lieu of this payment, calculated on the basis of the number of shares held by Kingsbridge (exclusive of shares that Kingsbridge may hold pursuant to exercise of the Kingsbridge warrant) and the change in the market price of our common stock during the period in which the use of the registration statement is suspended. If the trading price of our common stock declines during a suspension of the registration statement, the blackout or other payment could be significant.

Should we sell shares to Kingsbridge under this committed equity financing facility, or issue shares in lieu of a blackout payment, it will have a dilutive effective on the holdings of our current stockholders, and may result in downward pressure on the price of our common stock. If we draw down under this committed equity financing facility, we will issue shares to Kingsbridge at a discount of up to 10 percent from the volume weighted average price of our common stock. If we draw down amounts under this committed equity financing facility when our share price is decreasing, we will need to issue more shares to raise the same amount than if our stock price was higher. Issuances in the face of a declining share price will have an even greater dilutive effect than if our share price were stable or increasing, and may further decrease our share price.

We may be required to record impairment charges in future quarters as a result of the decline in value of our investments in auction rate securities.

We hold interest-bearing student loan auction rate securities (ARS) that represent investments in pools of assets. These ARS were intended to provide liquidity via an auction process that resets the applicable interest rate at predetermined calendar intervals, allowing investors to either roll over their holdings or gain immediate liquidity by selling such interests at par. The recent uncertainties in the credit markets have affected all of our holdings in ARS and auctions for our investments in these securities have failed to settle on their respective settlement dates. Consequently, these investments are not currently liquid and we will not be able to access these funds until a future auction of these investments is successful, the issuer redeems the outstanding securities, the securities mature or a buyer is found outside of the auction process. Maturity dates for these ARS range from 2036 to 2045. To date, we have recorded $1.8 million of unrealized loss in other comprehensive income (loss) related to the ARS that we hold in our investment portfolio. However, if the current market conditions deteriorate further, or the anticipated recovery in market values does not occur, we may be required to record additional unrealized losses in other comprehensive income (loss) or impairment charges in future quarters. This could adversely impact our results of operations and financial condition. Furthermore, in light of auction failures associated with our ARS, we re-classified our ARS as long-term investments due to the uncertainty associated with the timing of our ability to access the funds underlying these investments. If we are unable to access the funds underlying or secured by these ARS in a timely manner, we may need to find alternate sources of funding for certain of our operations, which may not be available on favorable terms, or at all, and our business could be adversely effected.

Table of Contents

We may not be able to recover the value of our ARS under our settlement agreement with UBS AG.

We have entered into a settlement agreement with UBS AG with respect to ARS sold to us by UBS AG and its affiliates, through which UBS AG and its affiliates may provide us with additional funds based on these ARS. Under this settlement, UBS AG will issue to Cytokinetics Series C-2 Auction Rate Securities Rights (the ARS Rights). The ARS Rights will entitle us to require UBS AG to purchase our ARS, through UBS Securities LLC and UBS Financial Services Inc. (the UBS Entities) as agents for UBS AG, from June 30, 2010 through July 2, 2012 (the Exercise Period) at a price equal to the liquidation preference of the ARS plus accrued but unpaid interest, if any (par value). In connection with the ARS Rights, we granted to the UBS Entities the right to sell or otherwise dispose of, and/or enter orders in the auction process with respect to, our ARS on our behalf at its discretion, so long as we receive a payment of par value upon any sale or disposition. The ARS Rights are not transferable, tradable or marginable, and will not be listed or quoted on any securities exchange or any electronic communications network. If our ARS are sold through the UBS Entities, we will cease to receive interest or dividends on these ARS. We may not be able to reinvest the cash proceeds of any sale of these ARS at the same interest rate or dividend yield currently being paid to us with respect to our ARS.

While we entered into the settlement in expectation that UBS AG will fulfill its obligations in connection with the ARS Rights, UBS AG may not have sufficient financial resources to satisfy these obligations. The United States and worldwide financial markets have recently experienced unprecedented volatility, particularly in the financial services sector. While UBS AG has stated that it believes it has the financial resources necessary to perform its obligations under the ARS Rights, UBS AG may not be able to maintain the financial resources during the course of the Exercise Period necessary to satisfy its obligations with respect to the ARS Rights in a timely manner or at all. The obligations of UBS AG under the ARS Rights are not secured by the assets of UBS AG or otherwise and are not guaranteed by any other entity. UBS AG is not required to obtain any financing to support its obligations. If UBS AG is unable to perform its obligations under the settlement, we will no longer have the certainty as to the liquidity or value for our ARS. In addition, UBS AG is a Swiss bank and all or a substantial portion of its assets are located outside the United States. Accordingly, it may be difficult for us to serve legal process on UBS AG or its management or have any of them appear in a U.S. court. Judgments based solely on the U.S. securities laws may not be enforceable in Switzerland. As a result, if UBS AG fails to fulfill its obligations, we may not be able to effectively seek recourse against it.

As part of the settlement, and if we so request, UBS Bank USA or an affiliate (collectively, UBS Bank) will establish a credit line in an amount up to 75% of the market value of the ARS that we pledge as collateral, subject to our entering into a Credit Agreement with UBS Bank and meeting certain other requirements. We have not determined if or when we will avail ourselves of this credit line. This credit line may not be available to us on favorable terms or funds under this credit line may not be available to us when needed, either of which would adversely affect our business.

In consideration for the settlement, we agreed to release UBS AG, the UBS Entities, and/or their affiliates, directors, and officers from any claims directly or indirectly relating to the marketing and sale of our ARS, other than consequential damages. Even if UBS AG fails to fulfill its obligations in connection with the settlement, this release may still be held to be enforceable.

Risks Relating to the Offered Securities

Our stock price may continue to experience fluctuations, which may significantly affect the market price of our common stock and securities convertible into or exchangeable for our common stock.

The market price of our common stock fluctuates and is expected to continue to be volatile in the future. These price fluctuations may be rapid and severe and may leave investors little time to react. Factors that may affect the market price of our common stock include the risks and uncertainties described above in this prospectus or described in any applicable prospectus supplement, as well as changes in securities analysts earnings projections or recommendations. These factors could lead to a significant decrease in the market price of our common stock and securities convertible into or exchangeable for our common stock.

Table of Contents

The securities we are offering may not develop an active public market, which could depress the resale price of the securities.

The securities that we may offer, other than our common stock, will be new issues of securities for which there is currently no trading market. We cannot predict whether an active trading market for the securities will develop or be sustained. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. If an active trading market were to develop, the securities could trade at prices that may be lower than the initial offering price of the securities. We cannot guarantee the liquidity of the trading markets for any securities.

We will have broad discretion over the use of the proceeds to us from this offering and may apply it to uses that do not improve our operating results or the value of your securities.

We will have broad discretion to use the net proceeds to us from this offering, and investors will be relying solely on the judgment of our board of directors and management regarding the application of these proceeds. Although we expect to use the net proceeds from this offering for general corporate purposes, we have not allocated these net proceeds for specific purposes. Investors will not have the opportunity, as part of their investment decision, to assess whether the proceeds are being used appropriately. Our use of the proceeds may not improve our operating results or increase the value of the securities being offered hereby.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

In addition to the other information contained or incorporated by reference in this prospectus, you should carefully consider the risk factors disclosed in this prospectus or any prospectus supplement when evaluating an investment in our securities. This prospectus contains forward-looking statements within the meaning of the Private Securities Reform Act of 1995 that are based upon current expectations. It is our intent that such statements be protected by the safe harbor created thereby.

Examples of such forward-looking statements include, but are not limited to, statements regarding:

the potential benefits of our drug candidates and potential drug candidates;

the utility of our cytoskeletal focus;

our plans or ability to commercialize drugs, with or without a partner;

losses, costs and expenditures;

the scope and size of operations;

potential competitors and competitive products;

sufficiency of capital resources and our needs for additional financing;

expected future sources of revenue and capital;

our ability to defend against intellectual property infringement claims;

increasing the number of our employees and recruiting additional key personnel;

Table of Contents

fluctuations in our stock price;

reliance on contractors; and

use of proceeds.

In addition, the words anticipates, believes, estimates, expects, intends, may, plans, projects, will, similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. We have included important factors in the cautionary statements included in this prospectus and the documents incorporated by reference in this prospectus, particularly in the sections entitled Risk Factors, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. We do not assume any obligation to update any forward-looking statements.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, the net proceeds from the sale of securities offered by this prospectus will be used for research and development, general corporate purposes and working capital requirements. We may also use a portion of the net proceeds to fund possible investments in and acquisitions of complementary businesses, partnerships, minority investments, products or technologies. Currently, there are no commitments or agreements regarding such acquisitions or investments that are material. Pending their ultimate use, we intend to invest the net proceeds in money market funds and government backed debt securities.

RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES

The ratio of earnings to fixed charges and the ratio of earnings to combined fixed charges and preferred stock dividends for each of the periods indicated is as follows:

	Fiscal Year Ended December 31,					Nine Months Ended September 30,
	2003	2004	2005	2006	2007	2008
Ratio of earnings available to cover fixed charges(1)						
Ratio of earnings available to combined fixed charges and preferred stock dividends(1)						

(1) Due to our losses in years ended December 31, 2003, 2004, 2005, 2006 and 2007 and the nine months ended September 30, 2008, the ratio coverage was

less than 1:1. Additional earnings of $32.7 million, $37.2 million, $42.3 million, $57.1 million, $48.9 million and $45.5 million would have been required in each of those periods, respectively, to achieve a coverage of 1:1.

Table of Contents

In calculating the ratio of earnings available to cover fixed charges and the ratio of earnings available to cover combined fixed charges and preferred dividends, earnings consists of net income (loss) before provisions for income taxes plus fixed charges. Fixed charges consist of:

interest expense; and

one-third of our rental expense, which we believe to be representative of interest attributable to rentals.

For the periods set forth in the table above, we had preferred stock outstanding only during 2003 and until April 29, 2004. All outstanding shares of preferred stock were converted into shares of common stock in connection with our initial public offering under our Registration Statement (SEC File No. 333-112261) declared effective by the SEC on April 29, 2004. We have no preferred stock outstanding as of the date of this prospectus.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our authorized capital stock consists of 180,000,000 shares. Those shares consist of 170,000,000 shares designated as common stock, $0.001 par value, and 10,000,000 shares designated as preferred stock, $0.001 par value. The only equity securities currently outstanding are shares of common stock. As of October 31, 2008, there were 49,444,563 shares of common stock issued and outstanding.

The following description summarizes the material terms of our capital stock. This summary is, however, subject to the provisions of our restated certificate of incorporation and any applicable certificate of designations for a series of preferred stock, and by the provisions of applicable law.

Common Stock

Holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. Upon any liquidation, dissolution or winding up of our business, the holders of common stock are entitled to share equally in all assets available for distribution after payment of all liabilities and provision for liquidation preference of shares of preferred stock then outstanding. Holders of common stock have no preemptive rights or rights to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to the common stock. Holders of common stock are entitled to receive dividends declared by the board of directors, out of funds legally available for the payment of dividends, subject to the rights of holders of preferred stock. Currently, we are not paying dividends.

Our common stock is listed on The NASDAQ Global Market under the symbol CYTK. The transfer agent and registrar for our common stock is BNY Mellon Investor Services LLC. Mellon s address is 525 Market Street, Suite 3500, San Francisco, California 94105 and its telephone number is (415) 951-4188.

All outstanding shares of common stock are fully paid and non-assessable, and all shares of common stock offered by this prospectus, or issuable upon conversion or exercise of securities, will, when issued, be validly issued and fully paid and non-assessable.

Table of Contents

Preferred Stock

Pursuant to our restated certificate of incorporation, our board of directors has the authority, without further approval by the stockholders, to designate and issue up 10,000,000 shares of preferred stock in one or more series. Our board of directors may designate the powers, preferences, privileges and relative participating, optional or special rights and the qualifications, limitations or restrictions of each series of preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights of the common stock. Thus, without stockholder approval, our board of directors could authorize the issuance of preferred stock with voting, conversion and other rights that could dilute the voting power and other rights of holders of our common stock, and may have the effect of decreasing the market price of the common stock.

The description of certain provisions of the preferred stock set forth in any prospectus supplement does not purport to be complete and is subject to and qualified in its entirety by reference to our certificate of incorporation and the certificate of designations relating to each series of preferred stock. The applicable prospectus supplement will describe the specific terms of any series of preferred stock being offered which may include:

the specific designation, number of shares, seniority and purchase price;

any liquidation preference per share and any accumulated dividends upon the liquidation, dissolution or winding up of Cytokinetics affairs;

any date of maturity;

any redemption, repayment or sinking fund provisions;

any dividend rate or rates, whether dividend rate is fixed or variable, the date dividends accrue, the dates on which any those dividends will be payable (or the method by which those rates or dates will be determined), and whether dividends will be cumulative;

any voting rights;

if other than the currency of the United States, the currency or currencies (including composite currencies) in which the preferred stock is denominated and in which payments will or may be payable;

the method by which amounts in respect of that series of preferred stock may be calculated and any commodities, currencies or indices, or value, rate or price, relevant to that calculation;

whether such series of preferred stock is convertible and, if so, the securities or rights into which it is convertible, and the terms and conditions upon which those conversions will be effected;

the place or places where dividends and other payments on that series of preferred stock will be payable; and

any additional voting, dividend, liquidation, redemption and other rights, preferences, privileges, limitations and restrictions.

Table of Contents

All shares of preferred stock offered by this prospectus, or issuable upon conversion or exercise of securities, will, when issued, be validly issued and fully paid and non-assessable.

Anti-Takeover Effects of Some Provisions of Delaware Law

Provisions of Delaware law and our amended and restated certificate of incorporation and amended bylaws could make the acquisition of our company through a tender offer, a proxy contest or other means more difficult and could make the removal of incumbent officers and directors more difficult. We expect these provisions to discourage coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. We believe that the benefits provided by our ability to negotiate with the proponent of an unfriendly or unsolicited proposal outweigh the disadvantages of discouraging these proposals. We believe the negotiation of an unfriendly or unsolicited proposal could result in an improvement of its terms.

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

- the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers, and (b) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66% of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation s outstanding voting securities. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Table of Contents

Anti-Takeover Effects of Provisions of Our Charter Documents

Our amended and restated certificate of incorporation provides for our board of directors to be divided into three classes serving staggered terms. Approximately one-third of the board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of the outstanding voting stock from obtaining control of the board of directors until the second annual stockholders meeting following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of our company and could increase the likelihood that incumbent directors will retain their positions. Our amended and restated certificate of incorporation provides that directors may be removed with cause by the affirmative vote of the holders of the outstanding shares of common stock.

Our amended bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the board of directors. At an annual meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to our Secretary timely written notice, in proper form, of his or her intention to bring that business before the meeting. The amended bylaws do not give the board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer s own slate of directors or otherwise attempting to obtain control of our company.

Under Delaware law, a special meeting of stockholders may be called by the board of directors or by any other person authorized to do so in the amended and restated certificate of incorporation or the amended bylaws. Our amended bylaws authorize a majority of our board of directors, the chairman of the board or the chief executive officer to call a special meeting of stockholders.

Because our stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of the board of directors by calling a special meeting of stockholders prior to such time as a majority of the board of directors believed or the chief executive officer believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual meeting.

Delaware law provides that stockholders may execute an action by written consent in lieu of a stockholder meeting. However, Delaware law also allows us to eliminate stockholder actions by written consent. Elimination of written consents of stockholders may lengthen the amount of time required to take stockholder actions since actions by written consent are not subject to the minimum notice requirement of a stockholder s meeting. However, we believe that the elimination of stockholders written consents may deter hostile takeover attempts. Without the availability of stockholder s actions by written consent, a holder controlling a majority of our capital stock would not be able to amend our bylaws or remove directors without holding a stockholders meeting. The holder would have to obtain the consent of a majority of the board of directors, the chairman of the board or the chief executive officer to call a stockholders meeting and satisfy the notice periods determined by the board of directors. Our amended and restated certificate of incorporation provides for the elimination of actions by written consent of stockholders upon the closing of this offering.

Table of Contents

DESCRIPTION OF THE WARRANTS

General

We may issue warrants for the purchase of our common stock or preferred stock or any combination thereof. Warrants may be issued independently or together with our common stock or preferred stock and may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The warrant agent will act solely as our agent in connection with the warrants. The warrant agent will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. This summary of certain provisions of the warrants is not complete. For the terms of a particular series of warrants, you should refer to the prospectus supplement for that series of warrants and the warrant agreement for that particular series.

The prospectus supplement relating to a particular series of warrants to purchase our common stock or preferred stock will describe the terms of the warrants, including the following:

the title of the warrants;

the offering price for the warrants, if any;

the aggregate number of the warrants;

the designation and terms of the common stock or preferred stock that may be purchased upon exercise of the warrants;

if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each security;

if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;

the number of shares of common stock or preferred stock that may be purchased upon exercise of a warrant and the exercise price for the warrants;

the dates on which the right to exercise the warrants shall commence and expire;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

if applicable, a discussion of material U.S. federal income tax considerations;

the antidilution provisions of the warrants, if any;

the redemption or call provisions, if any, applicable to the warrants;

Table of Contents

any provisions with respect to a holder s right to require us to repurchase the warrants upon a change in control; and

any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of warrants will not be entitled:

to vote, consent or receive dividends;

receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or

exercise any rights as stockholders of Cytokinetics.

As set forth in the applicable prospectus supplement, the exercise price and the number of shares of common stock purchasable upon exercise of the warrant will be subject to adjustment in certain events, including the issuance of a stock dividend to any holders of common stock or preferred stock, a stock split, reverse stock split, combination, subdivision or reclassification of common stock or preferred stock and any other events specified in the applicable prospectus supplement.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities covered by this prospectus in any of the following ways:

through one or more underwriters or dealers;

through agents;

directly to one or more purchasers; or

through a combination of the above.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Each prospectus supplement will identify any underwriter, dealer or agent, and describe any compensation received by them from us. Any initial public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or our purchasers as their agents in connection with the sale of the securities. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions or profits on resale received by underwriters, dealers or agents may be treated as underwriting discounts and commissions.

Underwriters or agents and their associates may be customers of, engage in transactions with or perform services for us in the ordinary course of business. We will describe in the prospectus supplement, naming the underwriter, the nature of any relationship.

We may grant underwriters who participate in the distribution of the securities an option to purchase additional securities to cover over-allotments, if any, in connection with the distribution. We will identify the amount of any over-allotment option in the applicable prospectus supplement.

We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent and the terms of any agency relationship in the prospectus supplement. We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may distribute the securities from time to time in one or more transactions:

at a fixed price or prices, which may be changed from time to time;

at market prices prevailing at the time of sale;

Table of Contents

at prices related to prevailing market prices; and

at negotiated prices.

A prospectus supplement or supplements will describe the method of distribution of each distribution of securities in the applicable prospectus supplement.

We may determine the price or other terms of the securities offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the underwriters obligations in the related supplement to this prospectus.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us and the underwriters, dealers and agents.

In connection with the offering of the securities, certain persons participating in that offering may engage in transactions that stabilize, maintain or otherwise affect the market price, including over-allotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the common stock in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer is purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. The securities may or may not be listed on a national securities exchange or traded in the over-the-counter market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriters who are qualified market makers on the NASDAQ Global Market may engage in passive market making transactions in the securities on the NASDAQ Global Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for the security; if all independent bids are lowered below the passive market maker s bid, however, the passive market maker s bid must then be lowered when certain purchase limits are exceeded.

To the extent required, this prospectus may be amended and supplemented from time to time to describe a specific plan of distribution.

Table of Contents

LEGAL MATTERS

The validity of securities offered hereby will be passed upon by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California.

EXPERTS

The financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2007 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a Registration Statement on Form S-3 under the Securities Act with respect to the shares of common stock we are offering under this prospectus. This prospectus does not contain all of the information set forth in the Registration Statement and the exhibits to the Registration Statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the Registration Statement and the exhibits and schedules filed as a part of the Registration Statement. You may read and copy the Registration Statement, as well as our reports, proxy statements and other information, at the SEC s public reference room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference rooms. Our SEC filings are also available at the SEC s web site at http://www.sec.gov.

Table of Contents

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus the information we filed with the SEC. This means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus. Information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than reports or portions furnished under Items 2.02, 7.01 or 8.01 of Form 8-K) until we complete our offering of the securities offered by this prospectus:

- our annual report on Form 10-K for the fiscal year ended December 31, 2007;
- our definitive proxy statement on Schedule 14A, filed on April 2, 2008;
- our quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2008, June 30, 2008 and September 30, 2008;
- our current reports on Form 8-K dated January 31, 2008, March 4, 2008, March 24, 2008, March 31, 2008, April 2, 2008, April 16, 2008, April 17, 2008, April 29, 2008, May 16, 2008, May 29, 2008, June 3, 2008, June 13, 2008, June 16, 2008, June 20, 2008, June 25, 2008, June 30, 2008, July 31, 2008, August 27, 2008, September 2, 2008, September 5, 2008, September 8, 2008, September 16, 2008, September 24, 2008, October 20, 2008, October 23, 2008, October 30, 2008, and November 10, 2008; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the Securities and Exchange Commission on March 12, 2004, and any further amendment or report filed hereafter for the purpose of updating any such description.

Copies of documents incorporated by reference, excluding exhibits except to the extent those exhibits are specifically incorporated by reference, are available from us without charge, upon oral or written request to:

Cytokinetics, Incorporated
280 East Grand Avenue
South San Francisco, California 94080
United States of America
Attn: Investor Relations
(650) 624-3000

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The aggregate estimated expenses to be paid by the registrant in connection with this offering are as follows:

Securities and Exchange Commission registration fee	$ 3,930
Accounting fees and expenses	5,000
Legal fees and expenses	25,000
Printing Fees	2,000
Miscellaneous	4,070
Total	$ 40,000

Item 15. Indemnification of Directors and Officers

Under Section 145 of the Delaware General Corporation Law, we can indemnify any person who is, or is threatened to be made, a party to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative other than action by us or on our behalf, by reason of the fact that such person is or was one of our officers or directors, or is or was serving at our request as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses including attorneys fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such officer or director acted in good faith and in a manner he or she reasonably believed to be in or not opposed to our best interests, and, for criminal proceedings, had no reasonable cause to believe his or her conduct was illegal. Under Delaware law, we may also indemnify officers and directors in an action by us or on our behalf under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to us in the performance of his or her duty. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, we must indemnify him or her against the expenses which such officer or director actually and reasonably incurred.

Our amended and restated certificate of incorporation contains a provision to limit the personal liability of our directors for violations of their fiduciary duty. This provision eliminates each director s liability to us or our stockholders for monetary damages to the fullest extent permitted by Delaware law. The effect of this provision is to eliminate the personal liability of directors for monetary damages for actions involving a breach of their fiduciary duty of care, including actions involving gross negligence.

Our amended and restated bylaws provide for indemnification of our officers and directors to the fullest extent permitted by applicable law.

We have also entered into indemnification agreements with our directors and officers. The indemnification agreements provide indemnification to our directors and officers under certain circumstances for acts or omissions which may not be covered by directors and officers liability insurance. We have also obtained directors and officers liability insurance, which insures against liabilities that our directors or officers may incur in these capacities.

Item 16. Exhibits

The following exhibits are filed herewith or incorporated by reference herein:

Table of Contents

Exhibit Number	Description of Document
4.1 (1)	Specimen Common Stock Certificate.
4.2 (2)	Fourth Amended and Restated Investors Rights Agreement, dated March 21, 2003, by and among the Registrant and certain stockholders of the Registrant.
4.3 (2)	Master Security Agreement, dated February 2, 2001, by and between the Registrant and General Electric Capital Corporation.
4.4 (2)	Cross-Collateral and Cross-Default Agreement by and between the Registrant and General Electric Capital Corporation.
4.5 (3)	Warrant for the purchase of shares of common stock, dated October 28, 2005, issued by the Registrant to Kingsbridge Capital Limited.
4.6 (3)	Registration Rights Agreement, dated October 28, 2005, by and between the Registrant and Kingsbridge Capital Limited.
4.7 (4)	Registration Rights Agreement, dated as of December 29, 2006, by and between the Registrant and Amgen Inc.
4.8 (5)	Warrant for the purchase of shares of common stock, dated October 15, 2007, issued by the Registrant to Kingsbridge Capital Limited.
4.9 (5)	Registration Rights Agreement, dated October 15, 2007, by and between the Registrant and Kingsbridge Capital Limited.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
12.1	Statement of Computation of Ratio of Earnings Available to Cover Fixed Charges.
23.1	Consent of PricewaterhouseCoopers, LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1	Power of Attorney of certain directors and officers of Cytokinetics, Incorporated (included on the signature page hereof).

(1) Incorporated by reference from our Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on

May 9, 2007.

(2) Incorporated by reference from our Registration Statement on Form S-1, registration number 333-112261, declared effective by the Securities and Exchange Commission on April 29, 2004.

(3) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 20, 2006.

(4) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 3, 2007.

(5) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 15, 2007.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

Table of Contents

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the Securities Act);

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high and of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the registration statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act, that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That:

(i) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant under Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it is declared effective.

(ii) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered, and the offering of these securities at that time shall be deemed to be the initial bona fide offering.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

Table of Contents

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in this registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or a prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of this registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

Table of Contents

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(7) That, for purposes of determining any liability under the Securities Act, each filing of the registrant s annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan s annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant 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. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on the 10th day of November, 2008.

CYTOKINETICS, INCORPORATED

By: /s/ Robert I. Blum
Robert I. Blum
President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Cytokinetics, Incorporated, and each of us, do hereby constitute and appoint each and any of Robert I. Blum and Sharon Surrey-Barbari, our true and lawful attorney and agent, with full power of substitution and resubstitution, to do any and all acts and things in our name and behalf in any and all capacities and to execute any and all instruments for us in our names, in connection with this registration statement or any registration statement for the same offering that is to be effective upon filing under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, including specifically, but without limitation, power and authority to sign for us or any of us in our names in the capacities indicated below, any and all amendments (including post-effective amendments) hereto; and we hereby ratify and confirm all that said attorney and agent, or his substitute, shall do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and as of the dates indicated.

Signature	Title	Date
/s/ Robert I. Blum Robert I. Blum	President, Chief Executive Officer and Director *(Principal Executive Officer)*	November 10, 2008
/s/ Sharon A. Barbari Sharon A. Barbari	Senior Vice President, Finance and Chief Financial Officer *(Principal Financial and Accounting Officer)*	November 10, 2008
/s/ James H. Sabry James H. Sabry, M.D., Ph.D.	Chairman of the Board of Directors	November 10, 2008
/s/ Stephen Dow Stephen Dow	Director	November 10, 2008
/s/ Denise M. Gilbert Denise M. Gilbert, Ph.D.	Director	November 10, 2008
/s/ A. Grant Heidrich, III	Director	

A. Grant Heidrich, III		November 10, 2008
/s/ Mark McDade Mark McDade	Lead Outside Director	November 10, 2008
/s/ Michael Schmertzler Michael Schmertzler	Director	November 10, 2008
/s/ James A. Spudich James A. Spudich, Ph.D.	Director	November 10, 2008

Table of Contents

EXHIBIT INDEX

Exhibit Number	Description of Document
4.1 (1)	Specimen Common Stock Certificate.
4.2 (2)	Fourth Amended and Restated Investors Rights Agreement, dated March 21, 2003, by and among the Registrant and certain stockholders of the Registrant.
4.3 (2)	Master Security Agreement, dated February 2, 2001, by and between the Registrant and General Electric Capital Corporation.
4.4 (2)	Cross-Collateral and Cross-Default Agreement by and between the Registrant and General Electric Capital Corporation.
4.5 (3)	Warrant for the purchase of shares of common stock, dated October 28, 2005, issued by the Registrant to Kingsbridge Capital Limited.
4.6 (3)	Registration Rights Agreement, dated October 28, 2005, by and between the Registrant and Kingsbridge Capital Limited.
4.7 (4)	Registration Rights Agreement, dated as of December 29, 2006, by and between the Registrant and Amgen Inc.
4.8 (5)	Warrant for the purchase of shares of common stock, dated October 15, 2007, issued by the Registrant to Kingsbridge Capital Limited.
4.9 (5)	Registration Rights Agreement, dated October 15, 2007, by and between the Registrant and Kingsbridge Capital Limited.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
12.1	Statement of Computation of Ratio of Earnings Available to Cover Fixed Charges.
23.1	Consent of PricewaterhouseCoopers, LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1	Power of Attorney of certain directors and officers of Cytokinetics, Incorporated (included on the signature page hereof).

(1) Incorporated by reference from our Quarterly Report on Form 10-Q, filed with the Securities and Exchange

Commission on May 9, 2007.

(2) Incorporated by reference from our Registration Statement on Form S-1, registration number 333-112261, declared effective by the Securities and Exchange Commission on April 29, 2004.

(3) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 20, 2006.

(4) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 3, 2007.

(5) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 15, 2007.